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FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

Vol. 89, No. 6 JUNE, 1936 Member A.B.C.—A.B.P.

Five Lives Were Lost in a Forest Fire Which Burned for Two Days in the Southern Part of New Jersey

FIRE EQUIPMENT MODERNIZATION

will be featured in the

1936 FIRE CHIEFS CONVENTION NUMBER

to be issued July 10

THE need for additional and more up-to-date fire fighting equipment by practically every fire department in the country is too well known to require further elaboration. Suffice it to say that normal purchases deferred during recent years have accumulated into a tremendous backlog of needed replacements.

To stimulate the interest of municipalities in purchasing new equipment to bring their fire fighting facilities back to par, FIRE ENGINEERING will devote its July number to the very timely subject: "Now is the Time to Modernize". This, our Annual Fire Chiefs Convention Number, is intended to render a much needed service to the fire field.

TO OUR READERS:

This year FIRE ENGINEERING — your favorite publication — will devote the entire contents of its July issue to your 64th Annual Convention, to be held in Toronto, July 28-31.

We know you are eager to see your copy of this special issue — as you always are — and we promise you it will be one of the best and most helpful Convention Numbers we have ever published.

You will want to keep your copy right on your desk as a reference guide for a long time. Don't miss it.

TO FIRE EQUIPMENT MANUFACTURERS:

This special Fire Chiefs Convention Number offers you a selling opportunity you cannot afford to miss.

If you want to get your share of the new fire department business now being placed, be sure your products and services are prominently described in this Convention Number.

It's important, because the thousands of chiefs who comprise the buying power of the fire field will expect to find your products in this issue. More Fire Chiefs use the Annual Convention Numbers of FIRE ENGINEERING as their buying guide than any other publication. Ask them!

FINAL FORMS CLOSE JUNE 2

FIRE ENGINEERING

A.B.C. 24 West 40th Street, New York A.B.P.
6 North Michigan Avenue, Chicago

THE FIRE CHIEFS' FAVORITE PUBLICATION

Lighten Your Burden

with

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What Is LINEN-LINED Hose?

A double jacket hose, with outer jacket of cotton, and inside jacket of long fibered linen of the best grade procurable. Both jackets are built for heavy duty.

What Does It Weigh?

35 pounds per length coupled—just about half that of conventional types of hose.

Will It Stand Rough Usage?

Linen fibre is not only considerably stronger than cotton, but it increases in strength when wet, thus providing a greater hydrostatic pressure than the average hose now used by fire departments.

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Practically none, because it is thoroughly mildew-proofed. It can, immediately after usage, be rolled or folded compactly and loaded on the truck without drying. In other words it is not affected by moisture, heat or cold.

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Having no rubber tube on the inside, when the hose is charged with water any heat on the outside will cause a slight seepage through both jackets, thereby protecting the outer surface.

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- STRONGER
- MORE FLEXIBLE
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- MORE COMPACT
- MILDEW-PROOF
- LOW COST
- GUARANTEED

The Modern Hose For The Modern Fire Department

Less weight with greater strength—that's one of the many important advantages of LINEN-LINED Hose that no up-to-date fire chief can afford to overlook. It's the first real advance in hose construction that the fire service has seen in many years.

Wherever LINEN-LINED Hose has been used or demonstrated, its performance under the most difficult conditions has more than met expectations.

If you believe in keeping abreast of the times—if you are striving for greater fire fighting efficiency in your department—you owe it to yourself and to your community to know more about LINEN-LINED Hose.

We will gladly send further particulars to fire officials, upon request. Dealer inquiries are also invited.

AMERICAN FIRE HOSE COMPANY

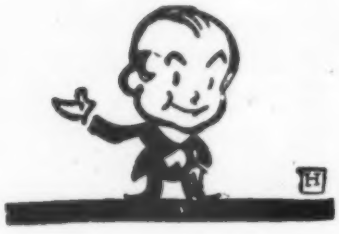
1500 WALNUT STREET, PHILADELPHIA, PA.

A Consolidation of FIRE AND WATER ENGINEERING *and* THE FIRE ENGINEER

FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

ROBERT H. LOCKWOOD, Associate Editor
FRED SHEPPERD, Editor
N. N. WOLPERT, Assistant Editor



We couldn't have said it better ourselves

THE following letter, from the Chief of a California city, sums up many things we have been telling you.

> "Enclosed you will find my check for a two-year subscription to FIRE ENGINEERING.
>
> "Things are getting better here. We have received wage increases and our first thought was to renew our subscription to the best magazine published for the betterment of the fire service.
>
> "Yours for continued success."

Conditions in the fire field *are* better—much better, as everyone knows. FIRE ENGINEERING is better, too. It is our business to make it better — better for you.

The Publishers

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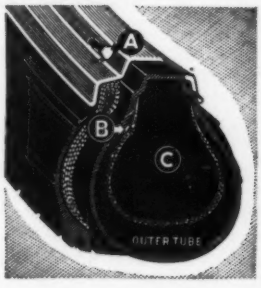
Goodyear Doubles Up On Safety For Fire Trucks

GOODYEAR LIFEGUARD* TUBE



A Look for the yellow valve stem and blue cap.

B LifeGuards* take a little longer to inflate because air passes gradually from "inner tire" to outer tube through this VENT HOLE.

C On this two-ply "INNER TIRE" you ride to a stop with truck under control, even though casing and outer tube blow wide open.

*TRADE MARK REG., U. S. PAT. OFFICE

FIRE departments by the hundreds have pinned their faith for years on Goodyear's famous All-Weather tread to prevent skidding.

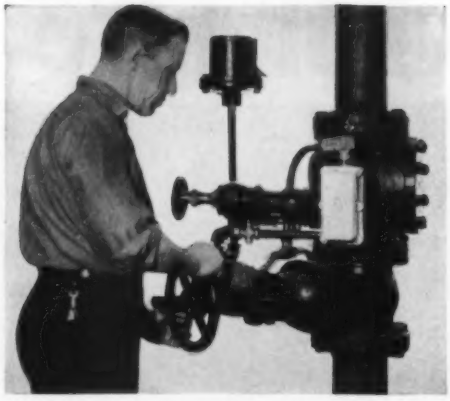
Now comes even greater nonskid protection in the Improved High Profile Goodyear Truck Tires. The deep-cut diamonds are more closely nested. Wider, flatter tread provides more road contact.

And fire fighters have been quick to acclaim Goodyear LifeGuard* Tubes—absolute protection if a tire blows out.

THE GOODYEAR TIRE & RUBBER COMPANY, INC.
AKRON, OHIO

GOODYEAR
TRUCK TIRES

DON'T BLAME THE SPRINKLER



A SPRINKLER WITHOUT WATER IS USELESS—44% of the so-called "sprinkler failures" are due to one single external fault: water supply shut off. *Someone in the plant closes a shut-off valve . . . and neglects to open it again. With A. D. T. Supervision, every opening and closing of shut-off valves automatically transmits a warning signal to the A. D. T. Central Station.*

There is no better fire protection available than the automatic sprinkler system—*when properly maintained and supervised . . .*

Analyze any case of "unsatisfactory sprinkler performance," and the chances are nine out of ten that unsatisfactory *human* performance is at the root of the trouble. A gate valve is closed, and no one opens it . . . pressure drops, and goes unnoticed . . . a gravity tank leaks or the water freezes . . . Then fire strikes—and another case of lax supervision and faulty maintenance is falsely charged to "sprinkler failure".

Now A. D. T. Eliminates Human Fallibility

A. D. T. Sprinkler Supervisory and Waterflow Alarm Service makes the sprinkler system *immune* to human carelessness, forgetfulness and neglect. Every vital part of the sprinkler system is under continuous, electrical supervision of an outside Central Station. Trouble conditions are detected automatically *when they occur* and immediately corrective action is taken. And when fire starts, the fire department is summoned automatically the instant the first sprinkler head opens.

The effectiveness of this service is proved by its record of performance. During the past ten years, properties protected by A. D. T. Sprinkler Supervisory and Waterflow Alarm service have averaged 99 97/100 per cent immunity from fire loss.

Descriptive booklets will be sent upon request to Fire Chiefs and others who are interested in modern methods of protecting property against fire loss.

A. D. T. Central Station Fire Protection Services

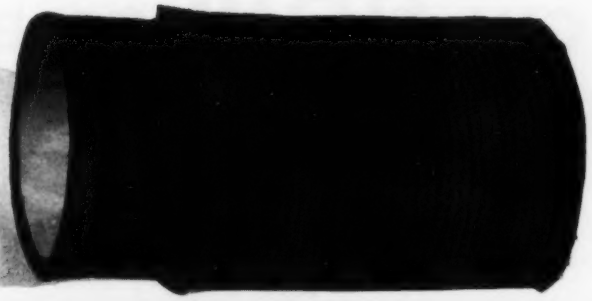
"AERO" AUTOMATIC FIRE ALARM : : SPRINKLER SUPERVISORY AND WATERFLOW ALARM SERVICE : : WATCHMAN SUPERVISORY AND MANUAL FIRE ALARM SERVICE

Central Station Offices located in all principal cities of the United States.

Controlled Companies of **AMERICAN DISTRICT TELEGRAPH COMPANY** • 155 Sixth Avenue, New York, N. Y.

A.D.T. SYSTEM — A NATION-WIDE PROTECTION SERVICE AGAINST FIRE, BURGLARY AND HOLDUP — ADT

RADIO-ACTIVE TREATED

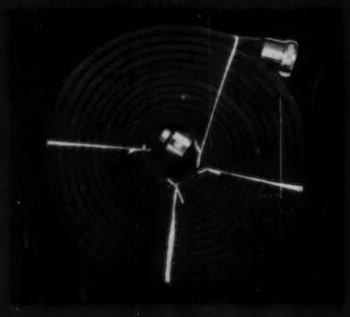


MANHATTAN Fire Hose

Flat-Folding

Easy To Handle

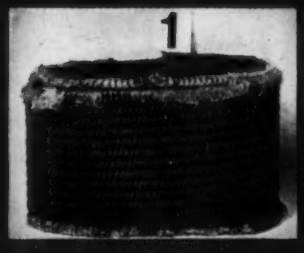
The illustration (right) shows how compactly Manhattan Radio-Active Treated Mildew-Proof Fire Hose rolls. Firemen will appreciate this feature as well as its balanced construction which also aids in the speed and ease of handling. Retains its full strength while rounded out under pressure as the hose has been finally cured in its naturally round shape.



Dependable

Will not Rot or Mildew

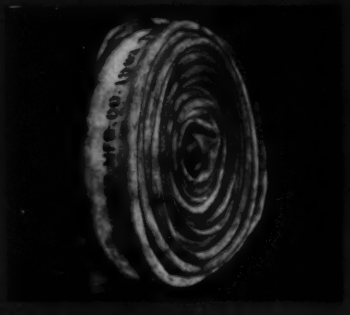
The illustration (right) proves that the dependability of Manhattan Fire Hose will never be endangered by mildew or fabric rot. This is a piece of Radio-Active Treated Manhattan Hose as it looked after having been buried for three months in a Florida swamp. It was unaffected by mildew. A sample with another treatment was badly rotted. The treatment responsible for this dependability is an exclusive development by Manhattan engineers and consists of impregnating the fabric with salts of rare earth metals which have radio-active properties. Other stringent factory tests supplement this mildew test and service records add their stamp of approval.



Durable

Long Service Records

The illustration (right) shows a length of Manhattan Fire Hose made in 1903 for the United States Lace Curtain Co., Kingston, N. Y. After 32 years it is still in excellent condition. Similar service records prove the durability of Manhattan Fire Hose—now further increased by the exclusive radio-active treatment.



THE MANHATTAN RUBBER MFG. DIVISION
OF RAYBESTOS-MANHATTAN, INC.
Sole Manufacturers of Radio-Active Treated Mildew-Proof Fire Hose
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BEGIN NOW TO BUILD UP YOUR FIRE ALARM BOX DISTRIBUTION

EVERY CITY should follow a planned annual program for maintaining a modern and adequate fire alarm box distribution that keeps pace with its growth in population.

TO accomplish this, every fire chief should first make a survey of his existing system by plotting out the locations of his present boxes on a map of his city and also marking distinctively those locations where additional boxes are urgently needed. A check-up on all obsolete boxes should also be made. Then a definite plan should be established to replace a certain number of obsolete boxes and add a few new ones each year so that, at the end of a ten-year period, the entire system will contain an adequate number of boxes on the streets—all of a modern type.

AFTER your needs have been determined in this manner, you should put in your next budget a figure large enough to take care of the purchase and installation of these boxes. Many cities have suffered during the past few years because of reduced appropriations; but now, with business and tax collections greatly improved, you should lay definite plans to start building up your fire alarm box distribution again on a planned basis, so that the efficiency of your fire department will not become too seriously impaired.

WE have an interesting booklet, "Planning Fire Alarm Box Distribution for Fifty Years", that should be a real aid to you in planning your fire alarm requirements. A copy will be sent to you on request.

THE GAMEWELL COMPANY
NEWTON, MASSACHUSETTS
"A Box A Block"

FIRE ENGINEERING

The Journal of the Fire Protection Profession

Volume 89 JUNE, 1936 No. 6

With the Editor

Brush Fires Still Take Their Toll

Southern New Jersey was recently visited by a brush fire which extended over many square miles area and resulted in the death of four CCC boys and at least one other person. A sudden shift of wind caused the fire to flank the CCC boys and trap them.

Despite all the work done by the CCC organization in constructing fire breaks and roads, despite the growing efficiency of forest and brush fire-fighting organizations and equipment, when a brush fire gets a good start the fire fighters seem to be next to helpless in combating it. The fire referred to above is a good example.

The ultimate solution to the problem involves a number of factors. More and wider fire breaks and more roads for the fire fighters probably represent the major essentials. Wider use of airplane and radio also would improve fire-fighting operations. Loud speakers on planes, to enable aerial observers to direct the fire fighters on the ground below, might also prove useful. Such loudspeakers have been employed on airplanes over cities for advertising purposes, with marked effectiveness.

Radio or loudspeakers on planes would aid materially in preventing loss of life on the part of fire fighters, for they could be informed immediately of any change in direction of the fire which might prove threatening.

Employing radio, both the plane and ground crews would have to be equipped with combined sending and receiving sets. The ground crew set might be mounted on a light fire truck and power for operating furnished either by batteries or by a generator driven by power take-off from the engine. Radio contact with aerial observer would make highly efficient and safe work possible.

There is plenty of room for study and research in methods of controlling brush fires, and any investment therein would prove profitable.

Fred Sheppard

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Fire Fighters Do Notable Work in Flood Rescue Operations

Splendid Rescue and Relief Service Accomplished by the Fire Forces During This Trying Period

By GEORGE O. MANSFIELD
Chief of Fire Investigation, Massachusetts State Police

Scores of Signal Boxes Were Submerged
View of silt and muck found when water subsided

WATER, the fireman's greatest friend, was suddenly transformed into a frightful enemy as New England's placid streams became pitiless forces of destruction. The wild waters, bursting in upon large cities, after already having spread havoc and terror in the rural communities, swept away bridges and tore buildings from their foundations, driving five hundred thousand people from their homes, taking toll of a score of lives and causing damage of close to $100,000,000.

The weather forecast for New England was "rain and warmer" for the first week in March. This became true, for between March 1 and the 20th the rain precipitation at Pinkham Notch, in northern New Hampshire, was 20 inches, a record for twenty days. At this place, 4 feet of snow was reduced to less than 20 inches in a ten-day period. Throughout New England there was a similar situation, and, while of a lesser degree, increased the flood dangers, which had already originated in the mountain regions of the north. The vast amount of water caused by the already described weather conditions could not be absorbed by the still frozen ground and soon torrents of water were loosed upon quaint New England, transforming the ordinarily peaceful countryside and busy cities into a turmoil.

First Flood Near Conway, N. H.

The first intimation of the devastation to spread over New England from the headwaters in the hills to the river mouths at the sea came on March 12, when an avalanche of water, slush, snow and soil ripped its way to the countryside near Conway, N. H., sweeping all before it. Roads were blocked and flooded within a few hours. Streams began to rise everywhere and the worst flood in one hundred years was on. The greater rivers rumbled with breaking ice, rose and burst over their banks. Between March 16 and March 19, torrential rain fell all over New England and soon the floods were general. The Androscoggin, the Kennebec, the Penobscot Rivers, in Maine; the Winooski in upper Vermont; the Merrimac and Connecticut in Vermont, New Hampshire, Massachusetts and Connecticut and many of the lesser tributaries noted for their scenic beauty were now large streams of terror. No such wide-spread wave of destruction has swept over New England in the memory of living men. New Hampshire's capitol city, Concord; the mill cities of Manchester and Nashua; the busy cities of Lewiston, Augusta and Bangor, in Maine; the textile cities of Massachusetts, Lowell and Lawrence; the shoe city of Haverhill, Massachusetts; Springfield, the metropolis of western Massachusetts; and Hartford, the beautiful capital city of Connecticut; were all in the throes of the flood.

Fantastic scenes were enacted in the pitch darkness of the stricken cities and towns. Electric power houses became inundated, causing a cessation of the service. Disaster, gigantic in scope, created a situation of frenzy and despair, as the populace in hundreds of communities sought relief and succor, clamoring for aid from the country's first line of defence, *the firemen.*

Dangers from Water and Fire

Behind the terror of the raging flood stalked the danger of a greater loss of life as people clung to house

Methuen, Mass., Firemen Rescuing Cottagers. Over 100 Were Rescued During the Flood Period

tops, inches above the rapidly rising waters, which also threatened to become a sea of flames, as huge gasoline tanks burst along the river front and spread their contents over the surface of the seething waters. Confronted with the herculean task of overcoming the seemingly hopeless situation, the fire service, true to its traditions, arose gallantly to the occasion and the "Yankee ingenuity," typical of New England, enabled the fire fighters to conquer both fire and water and emerge not only as victors against the elements, but also solidly enshrined in the estimation of all as heroes.

Diversity of Rescue Work by Firemen

Space will not permit a complete report of all of the activities of the Fire Departments in the flood areas. These were extremely diversified, and included hundreds of accomplishments. Manning boats, the firemen carried hundreds to safety, snatching men, women and children from precarious positions on house tops and even from the branches of trees where they had sought refuge. In six cities, from which authentic records have been received, more than two thousand people were carried in the boats of firemen and it is fair to estimate that hundreds of others were likewise saved in scores of other communities. Emergency light service was furnished by the Fire Departments in many instances, the most notable service of this type being at hospitals where, under the glare of Fire Department flood lights, emergency operations were performed. At the Mercy Hospital in Springfield, Mass., firemen's lights aided the stork, two children being brought into the world, as firemen illuminated the maternity ward.

Firemen dynamited ice and log jams to prevent the crashing of additional bridges and even staged a most unusual "rodeo" as they pursued, in boats, and lassoed floating gasoline tanks which threatened to crash bridges standing in their paths. At Manchester, N. H., a huge tank, carried by torrents which were unsafe for a boat to navigate, crashed into a bridge, but, fortunately, the tank collapsed like an egg shell.

Drinking Water Supplied to Lawrence

The supplying of drinking water to the city of Lawrence by several Fire Departments, who rushed pumpers to the assistance of that community when the entire water supply became undrinkable, while not as spectacular as some of the other incidents, was most important and essential to the health of thousands of people. Pumpers furnished by Boston, Lowell, Andover, Winchester, Reading and other cities and towns pumped clean water from the water service of Andover, North Andover and Methuen, Mass., and Salem, N. H., into the Lawrence mains, doing this for seventy-two hours until the filter beds and other apparatus at the Lawrence pumping stations could again be normally operated. Health authorities asserted that this service probably prevented an outbreak of pestilence in the mill city. Even after the Lawrence water facilities were restored, Fire Department pumpers were used to force the water through a chlorine tank for further purification.

Volumes could be written, if a complete description was to be given of the damage throughout New England. Therefore, a tabulation of each city and town's loss must be omitted, because of the lack of space, but what is true of any one community will furnish a picture for others. So, perhaps, by taking for example Concord, the capital city of New Hampshire, the figures will portray such a picture:

Flood struck March 19.
Peak reached March 20.
Estimated loss, $2,000,000.
Employees out of work, 3,000.
Streets under water, 44.
Homes flooded, 512.
Persons homeless, 2,250.
Factories flooded, 16.
Stores flooded, 100.
High water Jacksonville Mills dam, 13 feet 4 inches over dam.
High water Lowell dam, 20 feet 2 inches over dam.

Firemen Rescue Train Passengers and Crew

Scores of rescues were sensational,

Flirting with Death When a Slip Meant Doom

In the upper picture, Waltham Firemen are removing flashboards from the top of dam to allow free flow of river, which had started to change its course, endangering a third of the city. Lower—Arrow points to spot where river started to change course and also threatened to undermine dam abutment. Water is shown rushing over dam, after firemen had removed flashboards

Five of These 20,000-Gallon Underground Fuel Gasoline Tanks Were Uncovered at Lawrence, Mass.

One tank was carried into the river and was cast up high and dry eight miles from this spot, in the town of Bradford

but probably the most spectacular was accomplished near Plymouth, N. H., where firemen rescued twenty-two passengers and the crew of the Boston-Montreal Express. This luxurious train, known as the "Alouette," became stalled in a ravine and soon became surrounded by water which rose rapidly and threatened to submerge the entire train and snuff out the lives of those aboard. The Fire Departments of Plymouth, Meredith and Ashland, N. H. were appealed to for aid. The Plymouth department loaded boats and other equipment onto trucks and with the aid of a powerful town tractor-snow plow broke through roads clogged with huge ice cakes until they came within striking distance of the marooned train. At a point two hundred yards away they launched boats and battling the torrents were able to reach the train, immediately removing the passengers and taking them to the nearest hotel where they were comfortably and safely housed. The crew remained aboard the train as the waters increased in height and it was necessary for the Fire Department to return to effect a second rescue. Passengers, crew and railroad officials were high in their praise of the sensational feat which the firemen recorded as "just an incident in another day's work."

Narrow Escape of Six Firemen

Six firemen at Lowell, Mass., barely escaped drowning and were marooned in a building for fifteen hours, when their boats were crushed like eggshells, when caught in the torrents which rushed through alleyways in the rear of buildings. The men swam for their lives and succeeded in gaining refuge in a nearby building. When their crumpled boats were found later and no report had been received from the men for hours, they were given up as lost, and as a matter of fact, radio broadcasts carried the sad news of their untimely deaths. These men rigged up an emergency torch out of a broom soaked in fuel oil, the oil being secured from the reservoir of a range burner, and lighting this at night they were able to attract attention, and when other firemen arrived in boats, they learned the glad tidings that their comrades were still alive. After the rescue, the pall of sadness which had hung over the city became one of general rejoicing.

Firemen Sustain Heavy Losses

Haverhill, Mass., Fire Department probably suffered the greatest mone-

Upper—80,000-Barrel Fuel Tank Which Crashed into Bridge at Manchester, N. H., but Fortunately Collapsed Like an Eggshell. Lower—Engine 8 Pumping Out Lawrence, Mass., Gas and Electric Power Plant

In the lower picture it was raining hard when photograph was taken. A short time later, the engine and crew were forced to flee by the rising water

Seven Large Tanks and Fifty Drums, Washed from a Springfield, Mass., Oil Plant, Spilled 125,000 Gallons of Gasoline, Which Spread Over an Area Which Had 300 Dwellings in This Particular Neighborhood

tary loss, the Central Station and equipment being damaged to the extent of $38,000, while the fire alarm system headquarters was a total loss, estimated at $45,000. It was at Haverhill that the remarkably quick restoration of the fire alarm service was accomplished, when a temporary headquarters was erected, the story of which was so vividly told in last month's issue of FIRE ENGINEERING.

A feature of the flood results which stands out as a monument to the firemen's devotion to duty is found in the fact that while the fire fighters heroically stuck to their posts, lending aid wherever such could be given, their own homes fell prey to the raging torrents. Authentic reports show that forty-eight firemen's homes were damaged with an estimated loss of $58,000. These were located in Massachusetts as follows:

Chicopee	4
Dracut	4
Haverhill	9
Lawrence	4
Lowell	18
Springfield	6

And also at Nashua, N. H. The loss at Lowell, Mass., was estimated at $22,000, and at Haverhill, $25,000. One of the pleasing aftermaths of this type of flood damage is found in the report of Nashua N. H., where the Firemen's Relief Association reimbursed the firemen who sustained loss to their own property.

While scores of firemen suffered minor injuries and contracted illness, because of the unusual strains they were subjected to during the flood service, fortunately no serious casualties resulted to the fire personnel.

Hartford Hard Hit by Flood

Hartford, Conn., was hard-hit by the flood with practically a sixth of the city inundated. Fire headquarters had to be abandoned, except for the fire alarm system which was maintained through a portable generator, and one other station was also under water which reached to the second story. Alarms were received for several minor fires and a number of false alarms were also sounded, while the department was called upon to do much pumping service when many buildings became flooded. In spite of all this, the genial Chief, John C. Moran, who recently celebrated his fiftieth anniversary in the fire service, kept his department functioning and led his men through the trying times unbeaten by the elements. Apparatus was moved from the flooded stations and kept beyond the flood waters. At one time, six platoons were housed in a station which usually accommodates only two. Municipal telephone service failed, but temporary wiring was strung and communication was quickly restored. Over 40,000 phones in the city were out, and with many fire alarm boxes also out, there was great danger of delay in giving the alarms, but the efficient patrols set up in the flooded areas prevented any serious results.

Firemen Avoid Damage to Mills and Factories

At Lowell, Mass., the pumps of a private concern that maintained a reservoir which furnished water for sprinkler systems and other fire protection in a series of mills became inoperative. The Fire Department furnished a thousand gallon pumper which filled this reservoir to an efficient capacity. A few hours later, fire broke out in the storehouse of one of these mills which contained several million dollars worth of wool. The sprinklers functioned properly and checked the fire with less than a thousand dollars damage. Chief James C. Sullivan states that a loss running into millions might have resulted if the reservoir had not been filled. At Haverhill, Mass., in the Hamel Leather Company's plant, half a million dollars loss was prevented, when the Fire Departments' lighting units from Somerville and Cambridge illuminated spacious factory floors, while crews of workers

Chief Rufus Crittenden, Haverhill, Mass., Was Forced Out of His Headquarters by the Rising Waters, but He Took to a Boat and Directed His Men in the Flood Area

The fire alarm operator stuck to his post until the system went out of commission, when the fire alarm room became inundated. He is shown leaving via the window

At Lowell, Mass., When This Underground Tank Began to Rise During the Flood, the Owner Drove Tank Truck Over It for Ballast, with Disastrous Results

removed hides to places of safety, as Fire Department pumpers kept down the rising waters, which were skimmed by an oil which burst from a tank in the factory, and had this oil reached the hides, it would have caused a total loss.

Fires In and Near Flooded Areas

Approximately seventy-five fires occurred within the flooded areas and approximately one hundred and twenty-five beyond the flooded areas, in cities and towns affected by the flood, the most serious being at Warren, Mass., where the Ohio Carpet Manufacturing Company was a total loss, which is estimated at $150,000. This fire was believed to have been caused by a short circuit, due to flood waters. The local Fire Department, unable to sufficiently cope with the blaze, could not secure sufficient outside aid, because roads were impassable and neighboring Fire Departments, who would ordinarily reach the scene quickly, were prevented from arriving at all. This fire was a serious blow to the town, because it was the principal business which furnished a livelihood for the greater part of its citizens. Springfield, Mass., sustained a loss estimated at approximately $20,000, when one of the buildings of the Moore Drop Forge Plant was destroyed. Firemen carried hose lines to this fire in boats and even connected to hydrants which were completely under water. The Fire Department was able to confine the fire to one building and prevented a much greater loss in so doing. At Haverhill, Mass., responding to a small shanty fire during the first night of the flood, firemen wading waist deep in water, rescued an elderly man who was severely burned. Fires reported in Massachusetts, occurring in the flooded areas, are as follows:

Andover	1
Chicopee	3
Dracut	1
Fitchburg	1
Haverhill	12
Holyoke	1
Springfield	25
Warren	1

Fires outside of the flooded areas while the flood was in progress were as follows:

Fitchburg	2
Haverhill	2
Lawrence	3
Lowell	13
North Andover	2
Springfield	60
Westfield	1

No official records have been received from the other states, but a number of fires did occur in several of the cities in such states.

Partial Record of Flood Work

Much could be written about the firemen of every community, as the fire service was universally in the foreground. Snapshots from here and there may be of interest, however:

Fitchburg, Mass.: Shelter found for local refugees and stranded travellers; dwellings without water supplied by department tank trucks; department's light generator used to keep police radio in operation; pumping engines supplied water to Burbank Hospital for 117 hours; Fire Chief became sanitation and rehabilitation officer after flood.

Concord, N. H.: Fire Department furnished lights for emergency operation; removed cans of carbide at railroad round house before water caused them to ignite.

Chicopee, Mass.: Shut off ammonia tanks at refrigerating plant—prevented explosion; quartered approximately 100 people in the fire station; went 2½ miles by boat to fire in lime barrels at factory—extinguished fire with foam; directed the burning of 7,500 radio sets from local manufacturing plant, to destroy them because of water damage.

Amherst, Mass.: Collected $700 for relief work.

Andover, Mass.: Cut fire alarm system into circuit at laundry and maintained service with power from laundry generators; pumped 4,000,000 gallons of drinking water into Lawrence.

Nashua, N. H.: Street Department compressor used to keep pressure in air tanks to sound fire whistle, which was used as a warning signal, and also to assemble relief forces.

Boston, Mass.: Sent electric lighting apparatus to the town of Hadley, 130 miles distance.

Springfield, Mass.: Connected fire alarm battery chargers to trolley wires, maintaining service in this manner.

Hadley, Mass.: Apparatus moved many times until final retreat from flood was 1½ miles from station.

After flood waters had subsided, Fire Departments continued their emergency service, supplying hand pumps to spray basements and building interiors with disinfectant; pumped out thousands of cellars; flushed streets and inspected electrical equipment to guard against fires from short circuit. Throughout New England, fire stations were thrown open as receiving depots for Red Cross donations, and truck loads of food and wearing apparel and other

This Pumper at Lawrence, Mass., Pumped Chlorinated Water into the Mains for 41 Hours. X Shows Chlorine Apparatus

Spilled Gasoline from This Filling Station Underground Tank, on Main Street, Springfield, Mass., Endangered the Business District

supplies were quickly gathered in this manner.

Causes and Effects of Floods

The causes, the effects and special hazards of floods are now paramount subjects receiving the attention of fire and other officials since the waters have abated. As to the causes, it seems generally agreed that several days' heavy rainfall, rising temperatures, and quick melting of a great amount of snow, which Mother Earth could not absorb on account of frozen grounds and ice-covered rivers, brought about the effects which have already been experienced, and now all eyes are focused on the future. Control of floods will probably be accomplished, but it will be a lengthy process and the cost will be enormous. One salient fact that the flood produced, as directly bearing upon the fire service, is that Fire Departments are no longer just fire fighting and fire prevention organizations, but in reality are emergency service organizations. Everybody turned to the Fire Departments for aid and to quote the actual words of Chief Rufus A. Crittenden of Haverhill, Mass.

"If I had followed all the demands I received during the flood, it would have been necessary to have five thousand men, ten thousand pairs of rubber boots, a thousand lanterns, five hundred tons of sand and an angelic temper."

A few minutes after having made this statement and at the height of the emergency, the Chief received a call to send a rescue company to take a cat out of a tree.

Looking to the Future

Fire Departments are, therefore, in recovering from the flood, bending efforts to be prepared for the future. This is general, but in Massachusetts, under the leadership of the State Fire Marshal, Stephen C. Garrity, co-operating with the Fire Chiefs, a well organized plan is already under way to coordinate the Fire-Departments and their emergency equipments. Questionnaires have been sent out and when the data has been secured, it will be card indexed and a set-up of zones arranged, with a key man in each zone, so that every community, no matter how small, will be able to secure prompt and efficient service in any emergency.

One of the greatest hazards of the flood which will be given attention in the future, is the gasoline and fuel oil storage situation. Scores of tanks broke loose from their bases and spread their contents into the flood waters. Consideration is now being given to the best method of making such tanks secure in the event of rising waters reaching them. The accompanying photographs most vividly portray this particular hazard, which was general during the flood.

I.A.F.C. Membership Drive Producing Results

The drive for members being conducted by the International Association of Fire Chiefs, through the District Associations, is producing most encouraging results. Reports now coming in indicate a rapidly increasing list of new members. During the past week the following new members, or reinstatement of former members, were reported from the Great Lakes, Missouri Valley and Eastern district associations:

Great Lakes Association of Fire Chiefs

Chief James J. Delaney, Fire Headquarters, Springfield, Ill.
Chief James M. Ames, Fire Headquarters, East St. Louis, Ill.
Asst. Chief E. L. Rector, Fire Department, Grosse Pte. Park, Mich.
Asst. Chief L. Chouvin, Fire Department, Grosse Pte., Mich.
Chief Frank W. Fuller, Fire Headquarters, Brainerd, Minn.
M. L. Barnes, E. Detroit, Mich.
H. Berger, Belleville, Ill.
Lee Heenan, Architect, Pontiac, Mich.
Chief Paul O. Johnson, Fire Headquarters, Oregon, Ill.

Missouri Valley Association of Fire Chiefs

Chief William Grote, Fire Headquarters, Council Bluffs, Iowa.
Chief M. F. Gunderson, Fire Headquarters, Oelwein, Iowa.
Chief Arthur J. Voellinger, Fire Headquarters, Bettendorf, Ia.
Chief John W. Snider, Fire Headquarters, Kirksville, Mo.
Chief Cecil H. Wheeler, Riverton Volunteer Fire Dept., Riverton, Wyo.
Chief W. H. Pauley, Fire Headquarters, Basin, Wyo.
Chief Paul Ingels, Fire Headquarters, Lawrence, Kan.
Col. R. E. Truman, National Board of Fire Underwriters, Kansas City, Mo.
Chief T. B. Fuerstein, Fire Headquarters, St. Charles, Mo.
Chief R. P. Collatt, Fire Headquarters, Burlington, Ia.

Eastern Association of Fire Chiefs

Chief Thomas Milburn, Fire Headquarters, Jeannette, Pa.
Chief L. S. Stanford, Fire Headquarters, Sheffield, Pa.
Chief Harry R. Kilner, Fire Headquarters, Allison Park, Pa.
John Nolan, Secty., Keystone Fire Chiefs Assn., Malvern, Pa.
Batt. Chief Hugh Hunter, Fire Headquarters, Pittsburgh, Pa.
Deputy Chief George F. Lynch, Fire Headquarters, Newark, N. J.
Asst. Chief Thomas F. Carty, Fire Dept., Glen Ridge, N. J.
Chief Wm. H. Mackin, Fire Headquarters, Haddonfield, N. J.
Chief L. G. Heller, Fire Headquarters, Bridgeton, N. J.
Chief John C. Loughran, Fire Headquarters, So. Orange, N. J.
Chief A. J. DeMouth, Fire Headquarters, Ridgewood, N. J.
Chief Chas. A. McGinley, Fire Headquarters, E. Orange, N. J.
Chief Edgar L. Murphy, Fire Headquarters, Farmingdale, N. J.

Ohio Chiefs to Meet in Steubenville June 22-25

The nineteenth annual convention of the Fire Chiefs' Association of Ohio is to be held at Steubenville on June 22 to 25. There will be a fish fry on the evening of June 22 and meetings on June 23, 24 and 25. At 7 p.m. on June 23 there will be a firemen's parade, with prizes, and later a stag for the Chiefs and party for visiting firemen. On the afternoon of June 24 there will be demonstrations, water sports, etc., and a banquet in the evening. The convention will wind up on the 25th with a picnic in the woods.

Floodlighting Units Aid Flooded Areas

Fire Department lighting plants throughout Massachusetts were called upon for emergency duty in the flood areas. The Boston Fire Department sent Lighting Plant No. 1 to Springfield and Northampton in charge of Engineers Bernard J. Hoppe and Ernest Learsy. The machine rendered valuable service for nearly four days in Northampton. Other portable lighting units called into service were those from the Fire Departments of Brookline, Quincy, Cambridge, Arlington, and Somerville.

When the water supply of Lawrence failed, due to flood conditions, Fire Department pumping engines were utilized to pump water from the North Andover mains into the Lawrence system. Two spare pumpers from Boston and pumping engines from Somerville, Winchester, Andover, and Danvers were called into service.

HARRY BELKNAP.

CHIEF DAVID H. DE COURCY
President
Winchester, Mass.

CHIEF CARL D. STOCKWELL
First Vice-President
Burlington, Vt.

CHIEF J. W. RANDLETTE
Second Vice-President
Richmond, Me.

CHIEF JOHN W. O'HEARN
Secretary-Treasurer
Watertown, Mass.

CHIEF O. T. SANBORN
Director and Ex-President
Portland, Me.

CHIEF CHAS. O. SPEAR, JR.
State Vice-President
South Portland, Me.

CHIEF DANIEL B. TIERNEY
Chairman, Exhibit Com., and Ex-President
Arlington, Mass.

CHIEF M. W. LAWTON
Director
Middletown, Conn.

CHIEF A. H. KOLTONSKI
State Vice-President
Rutland, Vt.

CHIEF F. F. DICKINSON
State Vice-President
Brockton, Mass.

CHIEF JOHN F. MORONEY
State Vice-President
Meriden, Conn.

CHIEF SELDEN R. ALLEN
Ex-President
Brookline, Mass.

OFFICERS, DIRECTORS AND EX-PRESIDENTS, NEW ENGLAND ASSOCIATION OF FIRE CHIEFS

Hartford and Its Fire Department

Description of the Fire-Fighting Forces of the New England Fire Chiefs Association's Convention City

By HARRY BELKNAP

Chief John C. Moran
Hartford, Conn., Host to N. E. F. C. A.

HARTFORD, scene of the fourteenth annual convention of the New England Association of Fire Chefs, is the capital city of Connecticut and the insurance city of America. This gathering of fire officials will form a fitting celebration of the fiftieth anniversary of the entry of Chief John C. Moran, Hartford, into the fire service.

A comprehensive and interesting program has been laid out for the convention which will be of interest to Chiefs of both large and small municipalities. There will be an exhibit of modern motor apparatus and the latest tools and appliances for Fire Department use. Chief Daniel B. Tierney, Arlington, Mass., Second Vice-President of the International Association of Fire Chiefs, is Chairman of the Exhibit Committee.

Chief David H. DeCourcy, Winchester, Mass., President of the New England Association, will preside and will be assisted by Chief John W. O'Hearn, of Watertown, Mass., Secretary-Treasurer.

Features and Speakers at the Convention

Features of the convention will be the annual memorial exercises, forest fire wardens' sessions, indoor drill at the armory by the Hartford Fire Department, report of progress in firemen's training schools, and papers describing the latest types of enclosed fire apparatus and development of portable radio for two-way communication.

The speakers will include such noted figures as Jay W. Stevens, State Fire Marshal, California: Stephen C. Garrity, State Fire Marshal, Massachusetts; Dr. Harry M. Archer, Honorary Medical Officer, the New York Fire Department, and John C. Crowe, Assistant State Fire Warden, Massachusetts. There will be an address by a representative of the National Board of Fire Underwriters and there will be brief talks by exhibitors, describing new devices and apparatus.

Hartford a Modern City

Visitors to Hartford will find a modern city with ample hotel accommodations and many points of interest and attraction. Chief Moran and the Board of Fire Commissioners of Hartford are arranging an elaborate program of entertainment.

Hotel Bond, Hartford, Conn.
Headquarters, N. E. F. C. A. Convention

Assistant Chief Michael J. Keena
Hartford, Conn.

The population of Hartford according to the figures obtained in the United States Census of 1930 was 164,072. The principal industries are the manufacture of typewriters, small tools and drop forgings, fire arms, special machinery, brushes, and electrical appliances.

The following figures and statistics regarding fire protection in Hartford are taken from the last report made by the Committee on Fire Prevention and Engineering Standards of the National Board of Fire Underwriters and from the 71st annual report of the Hartford Board of Fire Commissioners.

The Hartford Fire Department

The Hartford Fire Department has been operated on a full paid basis since October 1, 1908. The two platoon system was installed in 1919. The Chief is the executive head of the department, having control over men and apparatus, with sole power to make assignments and transfers and,

Fire Headquarters, Hartford, Conn.

Also quarters of Chief and Assistant Chief, Engine Company No. 4, and Hook and Ladder Company No. 1. Water tower and floodlight and emergency truck.

subject to the approval of the Board of Fire Commissioners, to enforce discipline.

The Fire Commissioners are a bipartisan board consisting of six members, two appointed each year by the Mayor, with the approval of the Board of Aldermen.

Besides Chief Moran, the principal officers are an Assistant Chief, five Deputy Chiefs, master mechanic, and superintendent of fire alarm service. There are fifteen engine companies and six truck companies in the department.

The spare apparatus includes a 750-gallon American-LaFrance triple combination; a 500-gallon Mack triple combination; a 65-ft. American-LaFrance aerial ladder truck, and a Knox combination chemcial and hose car.

A new, steel drill tower, 80 feet high, was built in 1935. The lower portion of the tower is enclosed to provide a smoke chamber for instruction in the use of smoke masks and for demonstrating methods of ventilation at fires.

First Place in Fire Prevention Contest

As a result of the favorable fire record for the year 1935, when losses were reduced to 63 cents per capita, Hartford was awarded first place among cities of comparable size in the National Fire Prevention Contest, conducted by the United States Chamber of Commerce, to which the Hartford Chamber of Commerce sent its statistics. Chief John C. Moran, Hartford Fire Department, was present in Washington, D. C., when the prize, a bronze plaque, was presented to the representatives of the Hartford Chamber. This year Hartford won the award for the second time.

The following figures are from the report of the Hartford Board of Fire Commissioners for the fiscal year, April 1, 1934, to March 31, 1935.

The manual force consists of 291 officers and men including one Chief, one Assistant Chief, and five Deputy Chiefs—one of these Deputy Chiefs being in charge of fire prevention work and another acting as Drillmaster.

The number of fire calls and the total loss for the year both showed increases, although the entire increase in the loss can be charged to a single fire in a tobacco warehouse with characteristic heavy contents damage.

The department responded to 1,370 alarms. Of this number 509 were bell alarms, 689 were telephone alarms, and 167 were A.D.T., verbal, and thermostat alarms. The department responded to 5 alarms outside the city. The total number of alarms was 169 more than the preceding year. The fire loss for the fiscal year amounted to $188,484.07 which was $49,883.29 more than the preceding year.

In the course of fire prevention work, 79,100 inspections were made. While many conditions were found requiring remedying, only 63 written notices had to be served to bring about the desired changes.

Company Equipped with Two Pumpers

The fire-fighting efficiency of Engine Company No. 4 at headquarters was materially increased by assigning to it, for normal use as a hose car, the 750-gallon triple combination pumper which had been in use at No. 12 since March, 1915, until replaced by a 1,000 gallon machine. The older engine was thoroughly overhauled, repainted, and fitted with a wagon pipe. The Pope-Hartford hose car, which it replaced, was shifted to No. 5.

This change makes No. 4 the first company permanently equipped with two pumping units instead of the usual arrangement of one pumper and one hose car; but it is planned to make similar shifts in other two piece engine companies as fast as new 1,000 gallon pumpers can be obtained to provide replacements for hose cars. The use of two pumping units in one engine company will make possible many things in the way of better fire service than can be arranged for at present. In No. 4 both units have been completely outfitted with hose, nozzles, and minor equipment. Ordinarily both machines will respond together and the smaller will be used as hose and chemical car, but the arrangement makes it possible to send only the smaller machine on long runs to outskirt calls and to leave the large pumper available for use in case of another call downtown.

The same general plan will be followed, as the acquisition of additional 1,000 gallon pumpers permits, replacing the smaller outskirt machines with the larger size and replacing the ordinary hose and chemical cars with the older pumpers. An especially valuable feature of this plan, when it has been carried out in full, will be the extra pumping capacity available in an emergency.

The Fire Alarm System

The fire alarm system is a part of the Fire Department and is under the management of Superintendent of Fire Alarms Edward A. Sullivan, who was appointed in 1918, previous to which he had served as Assistant Superintendent for 15 years. He also has charge of the police signalling system. Charles J. Dillon is Assistant Superintendent of fire alarms. Four linemen, one box inspector, and six operators are employed, and extra help is hired when needed.

The fire alarm headquarters is located on the third floor of department headquarters which is a three story

fireproof building, with protected openings to serious exposures. The apparatus is of manual type and Gamewell make.

The Machine Shop force consists of a Master Mechanic and assistant and 6 mechanics. One of the first steamers in the Hartford department, No. 3, contained the first offset ever cast into a fire pump for installing a circulating or relief valve. The department has also operated self propelled fire apparatus continuously longer than any other city—the first self propelled fire engine being placed in service in 1876—that and several others being in service until the advent of gasoline motor apparatus.

NEW YORK DEPARTMENT TO STAGE BIG FIRE APPARATUS DEMONSTRATION

Over 50 Pieces of Apparatus, Including 32 New Machines and Others of Different Eras, to Take Part in Huge Parade

ON June 16, the New York Fire Department will stage the largest public demonstration of fire apparatus in the history of the city.

There will be first a parade of apparatus which will include machines used at different times through the past 200 years in New York, and will include the 32 new pieces of motor apparatus recently received by the city.

After the parade, the apparatus will be assembled at City Hall where it will be inspected and demonstrated by Mayor La Guardia and Fire Commissioner and Chief John J. McElligott. Twelve of the new pieces of apparatus are 85-foot aerial trucks; these trucks will be put through a joint demonstration.

Following the demonstration the city and Fire Department officials, as well as visiting Fire Chiefs, will be invited to attend the graduation exercises of probationary firemen in the New York Fire Department school of instruction on East 68th Street. Here the rookies will be put through a series of evolutions, including scaling ladder work, laying and operation of hose lines, aerial ladder evolutions, etc.

A number of prominent Fire Chiefs throughout the Eastern Section of the Country will be invited by Commissioner and Chief McElligott to attend the review and graduation exercises.

The parade and review will be the most striking fire "show" put on by the New York Fire Department since the "Midnight Alarm," the Fire Department show which drew a full house at Madison Square Garden every night for two weeks last winter.

The Modern Fireman Must Have Theoretical and Practical Training

Officers of the Denver Fire Department receive special training, and these officers are held responsible for the education of the men in their company. Drawings, charts, maps, model buildings, building materials, tools, cross sectioned machinery and equipment, as well as machinery in actual operation, were used in the lectures.

Southeastern Chiefs Meet at Atlanta

The ninth annual convention of the Southeastern Association of Fire Chiefs was held at Atlanta, Ga., May 4 and 5. The following talks were given during the convention:

"Fire Department Traffic Problems," Chief C. H. Johnson, Knoxville, Tenn.

"Problems of Small Town Fire Departments," Chief Floyd C. Pfaender, Winter Haven, Fla.

"Cotton Fires," Chief V. C. Shepard, Macon, Ga.

"Harbor and Waterfront Fire Protection," Chief Q. C. Dowling, Jacksonville, Fla.

"The Use of Salvage Covers," Chief D. W. Brosnan, Albany, Ga.

"The Importance of Fire Department Sprinkler Connections," Chief R. A. Foster, Portsmouth Navy Yard, Portsmouth, Va.

"The Relation of Adequate Water Mains to Municipal Fire Protection," L. C. Sledge, Engineer, S. E. Underwriters Association.

"The Use of 1½-inch Hose," Chief C. L. Ingram, Montgomery, Ala.

W. Q. Dowling, Jacksonville, Fla., was elected President; O. J. Parker, Atlanta, First Vice-President; C. M. Johnson, Knoxville, Tenn., Second Vice-President; R. S. Baughn, Norfolk, Va., Secretary-Treasurer. The 1937 convention will be held in Albany, Ga.

Following the convention a fire school was held at Atlanta, May 6-8. Harry Phillips, Assistant Fire Marshal, was Director of the College, and Chief O. J. Parker, Atlanta, President. Certificates were awarded to the firemen who satisfactorily completed the course.

New England Chiefs Issue Year Book

The annual year book of the New England Association of Fire Chiefs, containing the proceedings of the 1935 convention in New Bedford, with description of the exhibits and demonstrations, has been issued by Secretary John W. O'Hearn, of Watertown, Mass. The book has a directory of the active and associate members and contains the portraits of the officers and other prominent chiefs.

Five Die in Forest Fire

Twenty or more communities in Ocean County, N. J., rushed fire apparatus to protect homes, as a forest fire, which claimed five lives, raced across woodlands and fields in southern New Jersey.

Those dead were part of a forest fire crew. Of four others who were seriously burned, three were from a CCC camp.

The fire started near Chatsworth, a small community between Camden and Atlantic City. It involved an area of more than twenty square miles, and more than four hundred men were engaged in fighting the flames. Twice the business district and homes in Tuckerton were endangered.

Leonidas Coyle, State Fire Warden, directed fire fighting from an airplane that circled the burning area. The New York-Atlantic City highway was closed.

The following departments were among the many that assisted in combating the flames: Barnegat, New Gretna, Beechwood, Ocean Gate, Beach Haven, West Creek, Manahawkin, Tuckerton, Forked River, and Atlantic City.

The Crime of Arson

Fifth Article of a Series Which Describes Some of the Outstanding Examples of Incendiarism

By GEORGE O. MANSFIELD
Chief of Fire Investigation, Massachusetts State Police

George O. Mansfield
The author of this series of articles is holding a cuckoo clock which caused the arrest of an elderly arsonist.

A FEW case histories will probably explain the various features which go with cases of incendiarism.

At Fall River, Mass., the fire department, after extinguishing a fire on the lower floor, found a bucket balanced on a tilt, on the second floor. It was arranged to tip over when a string burned and would have spread eight gallons of gasoline on the fire.

When the case came to court, evidence was presented to show that the bucket, which was filled by the packer with lard at Chicago, had been finally sold to a retailer in Fall River and he, in turn, sold six empty buckets to a local resident. Five other buckets were found in the suspect's barn. The piece of wood from which the tilt was made was also found in the same place and the tilt was matched to this wood by the grain.

A crowbar found in the barn was discovered to have plaster on its point, and this plaster was the same as the plaster where holes had been made on the walls in the burned house. The imprint of the bar was also found in the studding at the point where the hole was made.

When confronted with all these incriminating facts which were positively proved by technical experts, the suspect broke down and confessed, involving seven others, all of whom were convicted.

Value of Evidence

Another recent case, not only brought out the value of technical evidence, but proved that the most minute piece of evidence may be the most essential in solving a case. A series of fires of similar character had occurred over a wide area. As the territory being so wide-spread, there was no suspicion at first that the fires were connected. The case was broken wide open, however, when an officer found on the lawn near a ruined summer home, six common pins. These pins from their appearance showed that they had only recently been there, because such pins would soon rust if exposed to the elements for any length of time. The officer made the deduction that something had been carried out of the building before the fire and, possibly, the pins had been spilled upon the front lawn.

On the theory that the place was probably robbed of its contents and the fire set to cover up the crime, the investigator secured a description of the contents and started out on a search of second-hand furniture and antique shops. His theory proved correct. Many articles which had been stolen from this building were located in a city some thirty miles away.

At the same time, an automobile tire imprint was found in the soft earth of the driveway and Fire Department officials stated that during the fire nothing had approached the building because of the intensity of the heat. The investigator then theorized that a motor vehicle had been used to carry the stolen goods away. Immediately a permanent record of the tire print was taken by means of a plaster paris cast.

Caught by Fingerprint

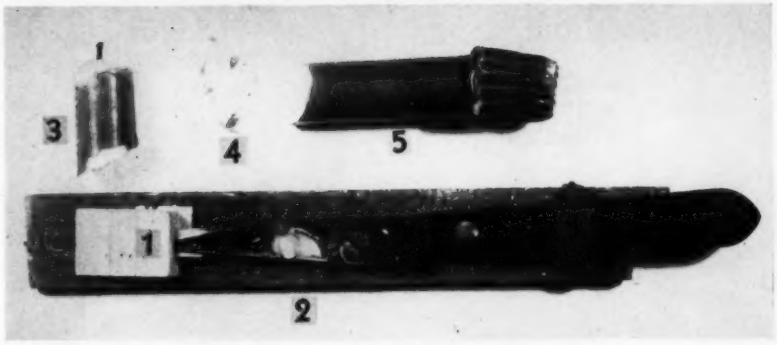
At about the same time, a building in another community was found broken into and preparations made to burn it, but the "fire traps" had failed to function and the fire did not occur. A fingerprint was found on a lamp chimney which had been removed from a lamp when its contents kerosene, had been poured on the

A Series of Evidence That Trapped a Suspect
The lard bucket was filled with gasoline and placed on a tilt, which was balanced by a string, which when burned, would permit the bucket to tip. The bucket was traced to the suspect and the wooden tilt was found to match a piece of wood found in the suspect's barn. A crowbar found in the suspect's barn fitted into indentation in studding. Plaster was found on the crowbar.

floor to spread the fire. This fingerprint was developed and was found to compare with the print of a person already arrested for a similar robbery. His associates were checked and one who had an automobile was brought in for questioning and the discovery was then made that a tire on his automobile had made the tire print which had been previously discovered.

Confession Involves Others

The second man was promptly locked up, and, after considerable questioning, confessed and involved many others. As the result of the initial discovery of the six common pins, twelve arrests were made, approximately $60,000 worth of stolen



Where Grease Made the Going More Difficult

1—Piece of rubber attached to a stick of wood by the officer and the blade stuck into rubber so that the knife would be held on to the wood by the bands. It shows how care must be used in handling evidence. In this case it was necessary not to disturb the candle wax on the blade. 2—The knife blade with candle grease on the blade. 3—Piece of candle found unburned, and this matched with the other part of candle (5). 4—Bits of candle wax found on the kitchen table where the candle was cut up.

Evidence Supplied by a Pasteboard Hat Box

The fire-maker was caught by tracing boxes from the manufacturer to a retailer. This store was watched until a man was seen going away with a dozen empty boxes. He was trailed and watched patiently until he was caught setting another fire.

property recovered, and a most dangerous group of thieves and firemakers broken up. Eight have already been convicted, and the ring leader sentenced to from twelve to fifteen years in State Prison.

In another case, one of the points brought out which had great weight with the jury was that two families consisting of fourteen persons spent the night that their homes were burned, visiting relatives and it was shown that twenty-two people stayed in a home of five rooms with only three beds.

In another series of fires, pasteboard hat boxes filled with inflammable fluids had been used. These boxes were traced from the manufacturer to the retailer whose place was constantly watched until a man was seen carrying away a dozen empty boxes. This man was trailed and caught in the act of setting a fire. He finally confessed to a long series of fires. He involved many others who had hired him. He was dealt with leniently because his information and testimony for the government resulted in the conviction of seventeen of the ones who worked for him.

One of the strangest cases on record occurred in a small town in the southern part of Massachusetts, where an elderly gentleman who lived alone, conceived the idea of burning his property for insurance. Like many firemakers, he not only desired insurance money, but also wished to have his goods. He moved everything from his house to a barn some distance away.

When the Fire Department arrived, the fire had gained such progress that it was impossible to enter the building and the discovery of the removed goods was not made.

The Cuckoo Told

Some hours later, when a fireman who was left to guard the ruins against rekindling, went close to the barn. He was startled by hearing a strange sound. It sounded every fifteen minutes. The fireman then discovered that the contents of the home had been packed away in the barn. When the barn was opened, the goods were moved out and there hanging on a nail, was the cause of the strange sounds. The particular article which proved the undoing of the elderly man's well-laid plans, was none other than an old-fashioned cuckoo clock which "coo-cooed" every fifteen minutes and frustrated a well-laid plot.

Electrical Fire Device

In another case an employee of a fireworks manufactory attempted to burn his home by stringing a long fuse used in fireworks manufacturing throughout the building. The ignition was to be created by means of an electrical contrivance consisting of an alarm clock, an automobile coil and battery. The apparatus generated a

A Dangerous Arson Gang Was Caught Because of a Plaster Paris Cast That Was Made of a Tire Tread

spark but failed to ignite the fuse. The setup was found intact and the owner of the building connected with the plot.

In a very recent case, which was disposed of during last October, the feature evidence was the introduction of photographs of chisel marks on a fire trap found at the scene of a fire as compared with similar marks made in a test on wood with a chisel found on the suspect's person. After this testimony was presented, the accused entered a plea of guilty.

To illustrate the point that a very small piece of evidence many times proves of the greatest value in a case, at a fire which occurred in a three-story dwelling, the firemen found several small candles which had all the evidence of having been cut from a large candle. In the tenement of the owner, on the lower floor, the remains of the candle from which the small pieces had been cut were found along with a knife which had flakes of candle wax still on the blade. Chips of such wax were also found on the kitchen table where the cutting had been done.

Eastern Association to Have Outstanding Program

The annual Convention of the Eastern Association of Fire Chiefs, which is to meet at Poughkeepsie, N. Y., on July 10 and 11, has just announced a tentative program for that meeting. It shows a very interesting selection of topics which should bring forth a record attendance.

Foremost of the subjects to be discussed is the lesson learned from the Morro Castle disaster and steps which should be taken to prevent such catastrophes in the future. Former Chief John Kenlon, of the New York Fire Department, is preparing this paper. He is especially familiar with the Morro Castle disaster, having served as an expert witness in the recent trial of the officers and company officials on the charges of criminal negligence.

Three papers will be presented on the work of Fire Departments during the recent flood. These will be by Chief Richard Lee Smith, of Pittsburgh; Chief Harry Schultz, of Johnstown, and Chief M. E. Clark, of Williamsport. All three cities were hit very hard by the flood and the Fire Departments were tremendously handicapped in operating at fires due to the depth of flood waters on business streets.

Chief Arthur Chambers, of Yonkers, N. Y., will make a comparison of European and American fire fighting methods. He recently visited some of the principal cities abroad and is well posted to discuss this subject.

One of the highly interesting topics will be a discussion of a new fire proof lumber, which will bear the label of the Underwriters' Laboratories. This fireproofing process received a very severe test at the Laboratories, and a small building constructed of it was recently subjected to a tremendously hot fire for approximately one hour at Kenilworth, N. J. Mr. Hartman, head of the company manufacturing it, will show films of the tests at Kenilworth.

Other subjects of considerable interest will be the following:

"How can a Fire Department get new apparatus that is badly needed where a municipality hasn't the money to spare?"

"What are you doing to meet increased fire hazards due to installation of air-conditioning systems?"

"How often, and how, do you test fire truck brakes?"

"What changes in fire apparatus design are necessary to meet changing conditions in Fire Departments, particularly in departments in small cities and towns?"

"What are you doing about protecting the public in old hotel buildings?"

Exhibitors at New England Chiefs' Convention

Following is a list of exhibitors at the fourteenth annual convention of the New England Association of Fire Chiefs, which is to be held at Hartford, Conn., on June 23 to 25, furnished through the courtesy of Chief Daniel B. Tierney, Arlington, Mass., Chairman of the Exhibit Committee. Chief Tierney writes that the exhibit this year promises to be one of the largest the association has ever had. The space at the armory is over an acre in extent and there will be plenty of room for all exhibits.

Maxim Motor Co., Middleboro, Mass., fire apparatus.
The Ahrens-Fox Fire Engine Co., Cincinnati, Ohio, fire engines.
Arthur H. Blanchard Company, Cambridge, Mass., fire equipment and supplies.
The Gamewell Co., Newton, Mass., fire alarm equipment.
Farrar Body Co., Woodville, Mass., fire pumps and equipment.
American-LaFrance & Foamite Ind., Inc., Elmira, N. Y., apparatus and fire department supplies.
Mack Trucks, Inc., Boston, Mass., fire apparatus.
Seagrave Corp., Columbus, Ohio, fire apparatus.
Garrison Engineering Corp., Great Barrington, Mass., fire apparatus.
Davis Emergency Equipment Co., Inc., New York, N. Y., emergency equipment.
The C. G. Braxmar Co., Inc., New York, N. Y., badges and fraternal jewelry.
Connecticut Fire Equipment Co., Bridgeport, Conn., fire department supplies.
J. J. Foley, Cambridge, Mass., brushes and squeegees.
United Pyro-Chemical Corp., Lynn, Mass., fireproof blankets.
L. W. Bills, Lexington, Mass., fire alarm equipment.
American Fire Equipment Co., Boston, Mass., fire equipment.
Homelite Corp., Port Chester, N. Y., portable flood lights.
Gorham Fire Equipment Co., Boston, Mass., fire equipment.
Midwestern Manufacturing Co., Mackinaw, Ill., firemen's clothing.
McKesson Appliance Co., Toledo, Ohio, resuscitation and inhalation equipment.
Justin A. McCarthy Co., Boston, Mass., fire fighting equipment.
Mine Safety Appliances Co., Pittsburgh, Pa., protective equipment for fire departments.
Boston Coupling Co., Boston, Mass., fire department supplies.
Luke Flanagan, New York, N. Y., scaling ladders.
D. B. Smith & Co., Inc., Utica, N. Y., fire pumps.
A. R. Schofield, E. Weymouth, Mass., radio, loud speaking set and lanterns.
B. F. Goodrich Fire Hose (Harry Lovell), Boston, Mass., fire hose and supplies.

Crash Fires Rum Cargo

A flow of burning whisky which cascaded from a wrecked truck in Chicago, fatally burned two men and a woman, and set fire to a church in direct line with the flaming liquid.

The heavy truck and trailer got out of control as it proceeded along Richmon Street in the early morning. It careened wildly against a cab, snapped off a trolley pole, and broke a hydrant. A gasoline explosion shattered a large number of the seventy barrels of whisky in the load. Flaming liquor gushed against the church and a residence.

Firemen were unable to reach the burning truck but prevented the spread of fire to nearby buildings. Two men in the truck were burned to death, and also an unidentified woman.

Gases, Chemicals and Hazardous Materials

Part X

In this tenth installment is continued the discussion of chemicals and hazardous materials more commonly encountered in fire-fighting. Methods of shipping and handling and their action under exposure to fire are given for most of the materials.

Explosion and Fire in a Corn Flour Plant
In this disaster four persons were injured and property damage of $225,000 was done.

Hydrocyanic Acid: A very poisonous, colorless liquid. It takes a gaseous form even at temperatures below 80° F. The vapor is lighter than air, and it burns in air.

It is used as an insecticide and for fumigating purposes. Apart from the poisonous qualities of hydrocyanic acid gas, which is deadly if inhaled, it is hazardous because its vapor is explosive if mixed with air, the maximum explosive mixture being one part of gas to five of air.

Hydrofluoric Acid (hydrogen fluoride): This acid is a water solution of hydrogen fluoride gas. It is a clear, colorless fuming, corrosive liquid, producing painful sores when allowed to touch the skin. It presents no fire hazard, but the life hazard from exposure to it is extreme. Gutta Percha or leaden vessels are used for its transportation.

Hydro-fluosilicic Acid: This acid is usually transported and found in lead carboys, hard rubber or paraffin bottles. It represents no fire hazard, but it is corrosive and hence constitutes a life hazard. In storage it should be safeguarded against mechanical injury.

Lead Nitrate: This is a white crystalline salt soluble in water and alcohol. It is used in dyeing and calico printing, and also in photography work. It is shipped in wooden barrels, and is a fire hazard, because it is an oxidizing material, furnishing oxygen upon heating. It is poisonous, if taken internally, but is not a corrosive material. In storage it should be isolated, and safeguarded against mechanical injury.

Magnesium: This is a metal resembling zinc in several respects. In color, it is silvery white. In thin strips or sheets it burns readily with intense heat, producing light of great intensity.

In powder form it is used for producing brilliant flashes in photography, and for tracer bullets used in machine guns.

The powder when disseminated in the air explodes by spark, and may create tremendous damage. When in contact with water, the powder liberates hydrogen, which is an explosive gas. It creates a life hazard due to its tendency to explode. Hence it should be considered as an explosive and treated as such.

In storage it should be kept remote from water or moisture; the dust should be avoided. It should be safeguarded against mechanical injury of containers.

Magnesium Nitrate: Magnesium nitrate is found in crystalline or powdered form and is usually shipped in wooden boxes. It is an oxidizing material, classing with sodium nitrate. It constitutes no severe life hazard, but it is troublesome in the presence of fire.

Naphthalene: This material also is known as tar camphor, naphthalin, and white tar. It appears in transparent crystals, and has a strong, coal tar odor. It is used as an insecticide, as a moth repellent; also in the making of dye stuffs, camphor substitutes, etc. It is usually packed in wooden barrels.

Naphthalene is dangerous because of its volatility. It evaporates at relatively low temperature and has a flash point of from 176° to 185° F. Once ignited it burns rapidly, producing very high temperature and dense black smoke. It melts and behaves as an oil. Very serious danger of flash fire may exist where naphthalene is sprinkled over goods, as in rug and fur storage houses. Its tendency to sublime (change from the solid to the vapor state without going through a liquid form) makes it hazardous.

It constitutes no direct life hazard except insofar as the tendency to increase fire intensity is concerned. In storage it should be isolated, and kept away from fire or heat.

Nickel Nitrate: This material is usually stored in wooden kegs, and is an oxidizing agent. It is poisonous when taken internally, but is not corrosive. In storage it should be safeguarded against mechanical injury.

Nitric Acid: This acid is a colorless, volatile liquid. At comparatively low temperature (187° F.) it boils, and at this temperature undergoes partial decomposition to nitrogen peroxide and water. It is a very active substance chemically, parting readily with its oxygen and acting very strongly on metals. Red fuming nitric acid is very powerful. Both types of nitric acid can be reduced in strength by adding water.

Nitric acid is used in the manufacture of sulphuric acid, for the manufacture of silver nitrate and other nitrates, for instance for etching, etc. Concentrated acid is used with sulphuric acid in the manufacture of explosives.

The action of nitric acid on straw, wood, or almost any organic substance is almost sure to result in spontaneous heating, and many fires have resulted from this action. With organic substances it may also produce explosive compounds. In a fire it is likely to produce extremely dangerous fumes. A person inhaling these fumes may not be affected for many hours afterward, but when the fumes do produce their effect, they are frequently fatal. This extremely hazardous nature of nitric acid is due to oxidizing characteristics, the fumes searing the lining of the lungs, and thus producing oxygen starvation of the blood, which is nothing other than suffocation. Nitric acid, being highly corrosive, causes severe burns by contact.

In operating at fires where nitric acid is encountered, thorough ventilation is necessary, and liberal use of water is essential to dilute the acid and to cool it off, so that fumes will not be generated. The dilution of the acid checks the production of fumes to a considerable extent.

In storage nitric acid should be guarded against mechanical injury of containers; it should be isolated from turpentine, combustible materials, carbides, metallic powders, fulminates, picrates or chlorates.

Silver Nitrate: Silver nitrate is a chemical usually found in stick form, and is stored in amber or black glass bottles. It is an oxidizing material, and thus increases the intensity of fire. It is both corrosive and poisonous, so represents a serious life hazard when present in quantity at a fire. In storage it should be kept in a dark place, kept cool and away from combustible materials.

Perchlorate of Potash: A white crystalline solid, used as an oxidizing agent in fire works and explosives.

Potassium Cyanide: This is a white crystalline chemical with a faint odor of bitter almonds. It is extremely poisonous, and should not be handled with bare hands. It is usually found in barrels and glass bottles and is used in the extraction of gold and silver from ores, electro-plating, heat treatment of steel, as an insecticide, and in analytical chemistry. It presents no fire hazard, but, as noted, is extremely hazardous to life.

(To be continued)

PROMOTIONAL STUDY COURSE

Herein is presented a series of definitions, questions and answers designed to aid fire department officers in preparing themselves for promotional examinations. In this department, which appears monthly, will be included questions typical of examinations held throughout the country.

Definitions

Aerial (Ladder) Truck: An aerial ladder truck is one in which the main ladder is permanently attached to the truck, and is elevated by compressed air, compression spring, power, hand cranks, etc.

City Service (Ladder) Truck: A city service truck is a ladder truck from which all ladders are removable, and are used only after removing. All its ladder equipment is portable.

Triple Combination Truck: A fire truck which carries a pump, chemical tanks and chemical hose, and water hose. It may or may not have a deck gun included in the other small equipment which it carries.

Quadruple Combination Truck: A fire truck which carries a pump, chemical tanks with hose, city service ladder equipment and water hose.

Questions

(To be answered in next issue)

1. Explain the action of a 3-stage centrifugal pump and state the advantages claimed for a centrifugal pump.
2. As officer in command, explain your action in each of the following cases:
   (a) An electric wire is burning.
   (b) An awning is burning briskly in close proximity to a large plate glass window.
   (c) An open tub of gasoline is burning in a garage.
   (d) There is a small fire in a warehouse and upon entering you detect the odor of acetylene gas.
   (e) Answering an alarm from an automatic system you arrive in front of the building and can detect no evidence of fire.
3. If it becomes necessary to cut the floor above the cellar to give better ventilation, state what part of the floor should be selected, and why.

False and True

(Is each statement false or true? Answers in next issue)

4. T F—Streams played on wool, cotton, hemp, jute, hay, straw, oakum, paper and similar materials, when baled, may cause them to increase one third in weight.
5. T F—Hot air accumulating at the top of a building involved with fire displaces the cold air.
6. T F—All members of the Department on duty are required to obey promptly and without discussion or debate orders from their superior officers.
7. T F—One of the objects of ventilating is to draw heat, smoke and gasses out of the lower levels of buildings.
8. T F—Contents of large office buildings are sometimes destroyed by reason of the building being an exposure to a fire.
9. T F—Removal of toilet bowls and breaking soil pipes are sometimes resorted to as means of relieving floor from water.
10. T F—Wires glass may act as a fire retardant even when badly cracked.
11. T F—Loss frequently results by reason of windows in exposure buildings cracking or melting.
12. T F—Wired glass is always effective against severe exposure hazard.
13. T F—Mushrooming of fire at the top floor of a building sometimes results in the entire building becoming involved by fire.
14. T F—Floors of so called fireproof buildings situated above the floor on which the fire originates frequently become involved by fire on account of the lack of good fire retardant glass in the sash.
15. T F—Unprotected vertical openings are rarely the cause of a fire extending.
16. T F—Automatic rolling shutters are considered better protection than are wired glass windows in metal frames.
17. T F—Sawdust is sometimes used as a means of directing the flow of water from floors.
18. T F—Fire caused in a building by reason of its being an exposure to another building occasionally attacks many floors simultaneously.
19. T F—Roofs covered with wooden shingles constitute one of the greatest menaces in the spread of fire.

Completion Statement

20. The advantage of the shut-off nozzle over the ordinary nozzle in fighting inside fires is.....
21. Open type electric motors are a fire hazard in a woodworking factory because .....
22. Two devices used for resuscitating firemen overcome by smoke and gases are the ..... and the .....
23. Directing a stream of water into a room filled with ammonia vapor which is escaping from refrigerating system is not a dangerous practice because .....
24. For operating from the roof of a building on a fire in the cockloft, a ..... may be used with effect.

Answers to Questions in Previous Issue

1. Secure instructions from my superior officer. In all probability my company would be assigned to preventing fires from sparks and embers. In such case, they would be directed to patrol the exposed area to detect and extinguish incipient fires starting from sparks and embers. If the exposed area which the company is intended to cover is large, patrolling would be done on the apparatus. Hand extinguishers and other small equipment would be employed for checking new fires.

2. (a) Contents of store may suffer unnecessarily from water damage. For example, where fire is on one of the upper floors and excess quantities of water are employed, the water may find its way to unprotected stock on lower floors, and create serious water damage.

(b) Damage may be kept at a minimum by use of controlling nozzles and small streams, if such are capable of properly controlling the fire. Immediately after stream has been used, and it is no longer necessary, nozzle should be closed. If considerable water has been used on a floor at a fire, some damage may be prevented by properly draining the floor after the fire is extinguished. This is usually done by cutting holes in floors near vertical shafts or near walls so that water can pass through to lower floors, doing the least possible damage. In general, the extent and nature of the fire would determine the size of streams used. Chemical streams, or very small water streams, are commonly employed on small fires inside, while water streams 1-inch or greater diameter are employed on spreading fires inside.

(c) So placed that they will be least exposed to damage from water and the elements. Valuable articles are usually removed from floor and placed on tables or counters. Materials on shelving against walls are usually stacked on counters so that water coming down the walls will not injure them. Floor is usually drained to eliminate unnecessary water damage. If salvage covers are carried, they are spread over materials placed on tables, counters, etc., to prevent injury by water running or dripping from the floors above. To prevent further damage after a fire, the contents of a store should be thoroughly overhauled—sorted out, and all traces of fire extinguished.

3. (a) By ventilating of burning buildings is meant the opening up of the building on the roof and sides (by removing scuttles, and other coverings, and even cutting through the roof in some cases, as well as opening windows and doors) so that smoke, gases, and heat can escape to the atmosphere and makes possible the operation of the fire fighting forces at close range. Ventilation also assists, in some cases, in the rescue of persons trapped in a building by making it possible for them to reach the street through inside means such as stairways and elevators.

(b) When a burning building is ventilated, the smoke, gases and heat rise and escape through the roof to the atmosphere and are replaced by fresh air which enters at the street, or other low levels. Ventilation, when properly accomplished, draws the fire up a definite channel such as a stairway or elevator shaft, and thus checks its spread over the various floors.

(c) Ventilation should be performed at a fire just as soon as lines are ready to follow up the work. Where it is possible for firemen to operate in the building, that is, where the fire has not progressed too far, ventilation should be done immediately upon the arrival of the department, provided lines can be gotten in operation instantly to follow up the work of venting. Where the fire is small and where it can be reached and extinguished without opening up for ventilation, the ventilating may be done after the building has been opened up and the lines sent in.

It is unnecessary to ventilate a burn-

ing building when the fire has progressed to such a point that inside work cannot be done by the fire department. When the fire has advanced to such a stage as to make necessary operations from the outside only, ventilating would not help appreciably, and it may hazardize the lives of men sent to the roof to perform this work.

While ventilation may be unnecessary at very small fires, it is usually performed in order to assist in overhauling and making sure that the fire is entirely out.

4. True; 5. True; 6. False; 7. False; 8. False; 9. True; 10. True; 11. False; 12. False; 13. True; 14. True; 15. True; 16. True; 17. False; 18. True.

19. . . . relief valve.

20. .. . falling on the nozzle or by holding it against some firm object.

21. . . . ladder. . . .

Questions with Answers

Question: You respond to a still alarm for fire in a large apartment house six stories in height. The fire involves the entire basement, and there is considerable smoke throughout the building. You have at your command one aerial truck, and one engine company. Explain in detail what you would do under these circumstances.

Answer: There is a very severe life hazard here. All efforts will therefore have to be devoted to preventing loss of life.

Immediately transmit a second alarm.

Should any persons be in the act of jumping to the street, ladders should be raised at once to windows at which these persons are located, and they should be assisted down. However, it is very unlikely that this will be the case, for only smoke has so far gone up the stairwell, and elevator shaft (if such be present).

If there is no immediate danger of persons leaping, then the truck company should send a ladder to roof and one man go up at once to open up over stairwell (and elevator shaft if there is an elevator in the building).

Engine company stretch in two lines at once, with the assistance of members of truck company, if necessary. These two lines to cover the basement stairway, and any other vertical shafts through which fire might rise. The object of this method of procedure is to hold the fire to the basement, and ventilate the building so that the occupants thereof can reach safety by means of stairs. Immediately after men have been sent to roof to ventilate, and lines have been stretched, have the balance of the company go through the building and see that everybody gets out. Members of truck company should direct people to safety, and take other action necessary to maintain calm. Care must be taken in laying in the lines of hose so as not to obstruct the free passage of tenants of the building to street.

In this problem it is assumed that there is an inside stairway leading from ground floor to basement.

By the time the building has been cleared, it is likely that additional apparatus will be on hand from the second alarm response, and also that a superior officer will have arrived to take charge of the situation.

The convention of the Northern New York Volunteer Firemen's Association will be held at Carthage, June 10-12.

Lux Apparatus Tested at Nyack, N. Y.

Before many prominent fire officials, tests were conducted on May 11 by Walter Kidde & Co., at Nyack, N. Y., with specially designed apparatus equipped with Lux cylinders. The test was in charge of A. C. Dehnel of the company.

The truck is equipped with four 75-pound capacity Lux cylinders, manifolded into two hundred feet of ¾-inch flexible metallic hose to which is attached a Lux horn and shut-off valve. Only the amount of hose actually needed may be taken off, without hampering the discharge.

In addition, the apparatus will carry two Model 20 hand Lux extinguishers and a 2½-gallon Kidde water type extinguisher. The body has a capacity for 1,000 feet of 2½-inch hose. At first the designers believed that fewer cylinders were necessary, but the official test showed the wisdom of greater gas capacity.

Using one hand model Lux extinguisher, a fire involving four galvanized iron wash tubs containing lacquer, varnish, gasoline, and fuel oil was attacked after it has been burning for fifty seconds. The fire was extinguished in twenty-one seconds.

For the second test, there were two pans side by side, each measuring 2.5 by 7 feet. They were filled to a depth of two inches with materials from the tubs and additional gasoline and fuel oil. The fire burned for three minutes and then was extinguished in one minute and forty seconds.

For the third test, a small frame house was constructed of light cases and 2 x 4-inch supports. It contained five gallons of gasoline and five pounds of excelsior. The house was 8.5 feet high and six feet square. The fire was permitted to burn for 2.5 minutes, and the flames were extinguished in 1.5 minutes. As this fire was outside the approved scope for carbon dioxide gas, some glowing embers remained. These were completely extinguished by additional gas.

An automobile engine, doused with a gallon of gasoline, was used for the fourth test. Fire burned for one minute, and was put out in twenty seconds.

For the fifth test, the double pan fire was repeated, and after the fire had burned for 1.5 minutes, was extinguished in twenty-nine seconds. A number of other tests were conducted by the Jackson Hose Company of Nyack.

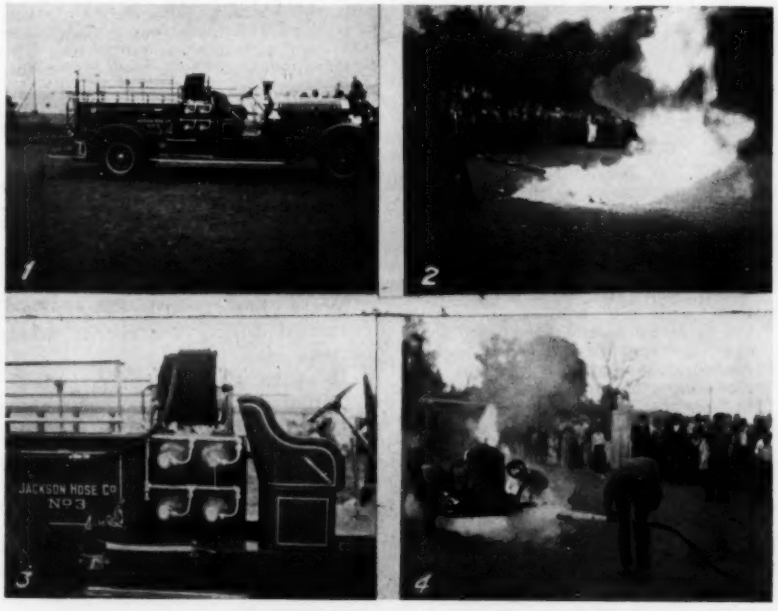
After the cylinders were recharged, the apparatus was officially placed in service the next day. It is the first Lux truck built and delivered as a separate unit to a city Fire Department. Nyack feels rather proud regarding other firsts. It was the first volunteer Fire Department to have a separate salvage unit in its department, the first to have a separate first aid unit, and more recently a separate floodlighting truck.

WM. PAUL BABCOCK.

A Correction

The fifty-third annual convention of the Connecticut State Firemen's Association is to be held at Greenwich, Conn., on August 21 and 22. By error this event was listed as August 14-15 in the last issue under "Convention Dates." An excellent program has been arranged and it is expected that this will be one of the largest conventions ever held by this association. D. W. Harford, South Norwalk, Conn., is the Secretary.

Mrs. John Ely, wife of Chief Ely of Champaign, Ill., died recently. She had attended Chiefs' conventions since 1902.



Views of Test of Carbon Dioxide Truck Recently Delivered to Nyack, N. Y.

1. New Lux-equipped truck delivered to Jackson Hose Company, Nyack, N. Y. 2. Extinguishing fire in parallel trays of oil. 3. Close-up of carbon dioxide manifold connections on truck. Four 75-pound tanks employed. 4. Extinguishing fire in automobile.

THE ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

FIRE-FIGHTING OPERATIONS DURING THE RECENT FLOOD

MUNICIPALITIES that were visited by the recent flood, are rapidly restoring the damaged areas to a semblance of every day conditions. Families that were forced to evacuate their homes, are again going about their normal duties. Pittsburgh, one of the most severely striken cities, has inserted advertisements in many newspapers to inform the nation that its former commercial activities have been restored.

Firemen, who during the trying period, served for long stretches at a time, are back to their regular shifts. But an admirable record remains of long hours of unselfish service to their communities.

They patroled areas to replace the damaged fire alarm systems; rescued families that were marooned; helped move merchandise and household contents to higher levels; devised means for providing fire protection even under the most trying conditions.

This round table discussion, which is a continuation of the one published in the previous issue, relates the work done by Fire Departments in flooded communities. The question in full is printed in the box on this page. In the box on the following page is the problem that will be presented in the next issue.

Discussion of the Question

Harold E. Warner, Chief, Amherst, Mass.: Our Fire Department operations were not curtailed as we were not in the immediate flood area. However our department coverage was extended, due to the fact that the flood took out a bridge at Sunderland and the one between Hadley and Northampton was under water. This condition still exists.

The entire department was called out at 10 p.m. Wednesday, March 18, and remained out until 4 a.m. the next morning. We assisted the evacuation of the towns of Hadley and Sunderland, and the housing of the refugees.

Some sort of an organization should be set up with various committees to handle specific things such as transportation, housing, bedding, food, etc. If these committees were properly organized they could be functioning in far less time than the well known relief units, and I think the Fire Department should play an important part in this organization, due to the executive experience that the officers have in performing routine department matters. Each fire station should have first aid supplies available to use in any sort of an emergency and some sort of a truck available to transport the material.

Edward T. Rose, Chief, Wheeling, W. Va.: During the floods, approximately four square miles of the city were under water and could not be reached by fire apparatus. It included the entire island which constitutes a ward of the city, over half of the south side, one-third of the business section and one-third of the eastern section.

Apparatus in the flooded areas was provided with galvanized buckets. The men were instructed to go as close to the fire as possible, commandeer boats, and go out and start bucket brigades. One fire on the island was handled from one of the bridges by a ladder from the bridge to a house; then another ladder was placed to a second house until the building on fire was reached. An explosion, followed by fire in the South side, was handled by firemen going out in boats, hooking up to a standpipe in a manufacturing plant close by, and getting water on the fire. This was one-quarter mile from land. Two persons lost their lives in this explosion. Bucket brigades stopped several fires that were the making of big ones.

HERE IS THE PROBLEM

Were fire fighting operations curtailed during the recent floods in your city.

If so, to what extent?

What work did your department perform outside of fire fighting operations?

Were any apparatus, such as department floodlights, etc., used in rescue operations?

What changes, or additional equipment, would you recommend to meet a recurrence of such an emergency?

I would recommend that three light power boats be provided with provisions for placing a gasoline driven pump in them, the pumps to have a capacity of approximately 250 gallons per minute, and assigned one for the island section, one for the south side and one for the Pike or eastern section.

A. N. Yearick, Chief, Lewistown, Pa.: We were handicapped when the fire alarm system went out of commission because power lines went down at 5 a.m., Wednesday, March 18. One pumper company fire house was flooded and apparatus and equipment removed.

Removal of all persons from flooded areas was carried out under the supervision of the Fire Department. Boats were confiscated and placed under the direction of the department. Fire trucks assisted in the removal of people. One ladder truck was left stranded at the Viscose plant, and it was necessary for the driver to swim out.

Fire police augumented the city police. The fire house was thrown open to refugees, providing sleeping quarters and the men furnished meals. Streets were patroled with fire trucks and men. After the waters receded old steam fire engines were used to pump out cellars. Two steamers worked continuously for 80 hours at one plant.

Department apparatus employed during the flood consisted of: four pieces of apparatus with all equipment such as boots, coats, rope, searchlights, etc. In one week's patrol duty, two squad trucks covered 500 miles each, and two ambulances which covered 130 miles, each carried 130 patients.

Additional equipment to meet such an emergency should consist of flood lighting equipment, boats with motors, and an up to date fire alarm system.

John C. Moran, Chief, Hartford, Conn.: Fire-fighting operations were not curtailed in Hartford during the flood. Five pumpers worked day and night at various points of the city, and both platoons of men were on duty. Although we had many more than the usual number of fires during that period (105), the department responded to all of these alarms without any hitch whatever.

Pumping operations for the utility companies, hotels, department stores and an insurance company building were done by the department.

When the electric light company went out of commission the entire

city was without electric current, which of course left us without current for charging our fire alarm batteries. Our floodlights and emergency truck were immediately put into service and cables connected from the fire alarm battery room to the generator which operated continuously for eight days and nights to furnish current for the batteries. A number of fire alarm boxes were covered by the flood waters, but all box circuits were kept intact except in one instance where it was discovered, after the waters had receded, that a box had disappeared. Apparently the water had carried the current between the two broken cable ends so that the box circuit was not out of commission.

Headquarters building is fully equipped with a large motor generator to furnish current for the fire alarm system, lighting the building and for elevator service. But the generator was located in the basement of the building. Therefore, it was under water and useless during the flood. We never expected water to reach such a level here in Hartford, but, after this experience, the generator will be placed on one of the upper floors of the building. This electrical generator equipment is an emergency plant to be used only should the electric light company fail to deliver current for fire alarm use, which has never happened until this occasion.

Rufus A. Crittenden, Chief, Haverhill, Mass.: There was no curtailment of operations, except that we were forced to set up an emergency fire alarm system, which was in complete working order in a very short time.

The department aided the merchants in salvaging goods from stores and business establishments, pumped out cellars, flushed out buildings, checked sprinkler systems and oil storage, as well as ammonia systems.

Floodlights were used at night to assist in the removal of persons marooned in buildings surrounded by water, as well as to light up the city for the protection of property when the street lights failed. Floodlights were also used in the business establishments in salvage work.

Purchase of new floodlight equipment, a boat for rescue work, and additional men for the Fire Department are recommended as an aid in meeting any future emergency of this sort.

M. J. Shea, Chief, Fitchburg, Mass.: Fire fighting operations were curtailed for about forty-eight hours. Five bridges were washed away and a low service water main sprung a bad leak through the sagging of the pipes due to a washout, thereby affecting two sections of the city.

Every man in the department was on duty for twenty-four hours, rescuing persons out of buildings by the use of boats and with the aid of the 75-foot aerial ladder. Due to swift currents boats had to be abandoned in several places along the river.

Two pumpers were in operation. The one at the Burbank Hospital was in service for 116 hours in order to boost the water supply pressure. Floodlights were also in use here. The second pump was used at the department electric light plant until a 1,500 g.p.m. and a 600 g.p.m. pump, purchased from Boston, were placed. Two pumps, 400 and 600 g.p.m. were hired. Our electric light plant was back in service within twenty-four hours.

Additional floodlighting equipment would be needed for future work of this type.

HERE IS THE PROBLEM FOR THE NEXT ISSUE

What is the principal water supply to sprinkler systems in your city?

If from water mains, have tests been made to show whether engines will rob the sprinkler system?

What are the rules as to connecting engine lines to sprinkler siamese?

Harry E. Colburn, Chief, Albion, N. Y.: Albion did not suffer from flood waters as did other villages in the southern tier.

The greatest damage experienced here was because the sewage system was unable to handle the surface waters brought on by rains and melting snows.

A 750-gallon pumper was used for three days and two nights, pumping from a manhole in a trunk line sewer. This greatly relieved the situation. If that had not been possible, the damage would have been much greater.

Floodlights and another pumper would help out in a condition such as ours. Our pumper, of the centrifugal type, suffered no damage through this emergency use.

George W. M. Brown, Chief, Newburgh, N. Y.—Fire fighting operations in the city of Newburgh were not curtailed during the recent floods. We were very fortunate in escaping with only a few flooded cellars in the down town area.

A. G. Derra, Chief, Schenectady, N. Y.—Fire fighting was not curtailed to any great extent during flood. Underpasses were slightly flooded but did not stop traffic. Fire apparatus passed through at reduced speed.

One person was removed from a house as water began to rise. Others were notified to move, as buildings were endangered by heavy rains.

Fire and Police Departments should be supplied with boats to help people caught by fast rising water, in case of floods.

H. C. Root, Chief, Springfield, Mass.—Recent flood did not curtail department operations.

Flooded areas were patrolled by boats until the flood water receded, and then by automobile until the fire alarm system was restored.

Floodlights were furnished to Mercy Maternity Hospital, where two babies were born, to the Salvation Army, Grand Army Hall, and various sections of the flooded area. Ropes, axes, claw-bars and sledge hammers were used in removing people from above the first floor.

E. S. Mohn, Chief, Jersey Shore, Pa.: We were extremely fortunate in not having any fire alarms while flood waters submerged the town. About fifty per cent of the area of the borough was under water. In the business district the water was from three to eight feet deep. Our water supply was curtailed, in that our source of supply main, a 16-inch pipe, was broken and a reservoir supply had to be relied upon. This failed to reach half of the town and no water was available in that section for about a week.

The department does not own flood lights or any equipment of that type, which could be put to use during a flood.

Our main fire station was submerged to a depth of four feet, but the apparatus was removed and placed on a private lawn, about a block from the fire house. The rear wheels were under water, but the engines of our Mack pumper and Seagrave city service truck were high enough to escape the water. I was marooned in my home with nine feet of water surrounding the house. Asst. Chief Edwards deserves the thanks of the community for his work.

Lloyd Layman, Chief, Parkersburg, W. Va.: During our recent flood, fire fighting operations in this city were not curtailed due to emergency measures which were taken to cope with the situation. All firemen were ordered to continuous duty with meals being served in the station houses. For the protection of inundated high value district, a 750-gallon pumper mounted on a flat top steel barge was manned by a crew of one officer and five men during the entire flood period. In addition to the 750-gallon pumper, scaling and small ladders were provided, also necessary auxiliary equipment. A four-way Multiversal Nozzle was mounted on the pumper. This barge was powered by a gasoline towboat, and could be moved to any location in the flooded area. A houseboat provided living quarters for the crew. Communication with this equipment was maintained by a short-wave radio receiver through the Police broadcasting system.

Inspections of the High Value District was made as the water started to rise to determine that all gas was shut off, and all chemicals which were hazardous when combined with water were removed.

The barge used was a flat top steel fuel barge which we borrowed from the U. S. Army Engineering Department. It drafted about sixteen inches of water when equipment was loaded. Our gasoline towboat, which was rented from a private operator, drafted about eighteen inches of water. Poles were provided to move this barge when it was necessary to cut loose from the gasoline towboat.

I would recommend as equipment for cities whose high value districts are subject to reoccurrence of floods, a specially constructed flat top steel barge, preferably thirty to forty feet in length, on which a motor pumper could be mounted during such emergency. We have experienced no difficulty in hiring or borrowing a houseboat for living quarters, or a gaso-

line tug for motive power. The steel barge which we used is difficult to handle due to the fact that it is about eighty feet in length. During the entire flood we experienced no loss of life and not a single alarm of fire was received from the entire city.

R. O. Raymond, Chief, Renova, Pa.—The town had seventy-five per cent of its area under water, and if a fire had broken out, the apparatus could not have been placed in operation due to the flooded streets.

The West Branch Hose Co. No. 2, and Emerald Hose Co. No. 3 helped people evacuate their homes. The ambulance of the West Branch Hose Company made fifty-two trips to homes, hospitals, etc., took all the sick from the flooded area, and placed them in the Elk's Home which was used as a temporary hospital.

After the water receded, both companies used their apparatus to pump out cellars, clean streets of mud, etc. The only lights available were the apparatus lights and a few electric lanterns.

Additional equipment should include gas masks, larger flood lights on apparatus, and dry clothes on apparatus for the men.

Herbert R. Ferris, Chief, Greenfield, Mass.—One section of the town was without fire protection during the flood. A pumper with ladders, carrying 1,000 feet of 2½-inch hose, and 150 feet of 1½-inch hose, nozzles and other necessary equipment, was sent to this section. The men of this area then formed a fire company to protect their homes.

A power boat was used for rescue work and help was given in flushing the streets after the flood.

For a like condition I would recommend floodlights, and a power boat on wheels that could be transported to any section of the town.

J. H. Espey, Chief, Elmira, N. Y.—We were fortunate during the flood. Only one section of the city was inundated, and no fires occurred therein. No doubt, had an alarm been received from this section, it would have been difficult to maneouvre apparatus through the water, and fire-fighting operations would have been curbed.

Two of our motor pumpers were utilized to assist our siphon and the stationary pumps at the pump station so rising flood water would not stop their operation. These machines were used to hold down inrushing water in a hospital elevator pit, and at two schools. An old steam fire engine worked continuously for 190 hours at a sewer break, until the danger was past, but the flues at this time failed and we scrapped the steamer.

In the event of recurrence of such an emergency, ten portable pumping units purchased by the city should prove valuable. A siphon or two should be in the possession of the Department of Public Works and every possible step taken to eliminate Fire Department motor pumpers from this type of service. We were also handicapped by a lack of boats. These should be provided as Fire Department equipment and several others kept available by other agencies.

E. V. Stone, Chief, Ludlow, Mass.—Fire fighting operations were but slightly affected during the recent flood. Some equipment and apparatus were used successfully to prevent damage.

Floodlights were not needed because the local power plant was kept running. Our Akron siphon did a wonderful job and our only regret was that we didn't have more.

Much could be advised for districts that are in potential flood areas. It seems criminal that nothing much has ever been done to meet such a happening. I am only a Chief, but in my business I must anticipate things that may never happen and equip my department to meet most any emergency that might arise. Floods visited most of these districts in former years, and it was only reasonable to expect a recurrence.

It seems fair to ask why weren't dikes built, dams strengthened, and bridges kept safe? If only a part of the cost to rehabilitate had been spent before to prevent flood conditions, all this misery and loss of life would have been prevented, if not wholly, at least to a great extent. "Prevention is worth more than cure" is antique advice that Fire Chiefs never forget.

Thomas J. Lynch, Chief, Waterbury, Conn.: Waterbury is so situated that the recent flood did not cause any trouble. Several men who make their homes in shacks along the banks of the Naugatuck River were rescued. One truck company was employed for about six hours at this task.

Firemen had to wade out into the river, and finally resorted to boats secured from one of the nearby lakes, to rescue the imperiled men.

Due to our location, I personally believe it would be unnecessary to purchase additional equipment to meet a similar emergency.

W. J. Gates, Chief, Glens Falls, N. Y.: The only flood condition was an excess of surface water. Cellars were flooded in every section of the city and our pumper was used to empty some of them.

C. M. Johnson, Chief, Knoxville, Tenn.: Fire fighting was not curtailed during recent floods in Knoxville.

On two occasions the Fire Department was called to rescue people who were marooned in their homes by a flooded creek which flows through the city. An aerial truck was used for this purpose.

Two or three small rowboats kept in fire stations would be all the additional equipment I believe necessary to take care of any emergencies in Knoxville that would be caused by floods.

George Brencher, Chief, Darien, Conn.: Darien was not affected by flood waters. Fire Department floodlight equipment was at the disposal of the State Police, if such was needed.

I do think that all Chiefs should have a portable floodlight generator for such emergencies.

F. J. Washburn, Chief, Auburn, N. Y.: Auburn has never experienced serious flood conditions.

This year a few cellars were flooded and some sewers were blocked. The department spent a total of five hours pumping out storm water sewer catch basins, and ten hours pumping at the light company plant to keep transformers dry.

Fred A. Hutchinson, Chief, White River Junction, Vt.: Fire department operations were not hampered during the flood period.

Assistance was given to move furniture from the first to the second floors of homes. About twenty-five buildings were flooded. The height of the water was about three or four feet in these structures.

J. J. Lynn, Chief, Easthampton, Mass.: The department received a call at 3:35 a.m. to send a boat to save some cattle. Accompanied by one fireman in a boat we went to the address given and succeeded in saving two cows and a horse. At another location we saved three cows and a horse. These animals had to swim about a quarter of a mile, but they were saved.

A second call was received from the same location early in the evening and the department apparatus was wrecked in making this response, as the water rose rapidly.

C. L. McCarthy, Chief, Worcester, Mass.: Department operations were affected very little during recent floods. Apparatus had to detour to avoid bridges. Assistance was rendered in pumping out cellars and placing floodlights. Additional regular water pumps could be used in a similar situation.

Parkersburg, Va., Pumper on Steel Barge

Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified

Flashing of Dry Cleaning Fluids

To the Editor:

Will you kindly tell me what would cause a dry cleaning washer to flash while cleaning cloths with cleaning solvent?

A. L. T.

Answer: Non-explosive, dry cleaning fluids are usually made by adding a fire extinguishing agent, such as carbon tetrachloride, to a flammable cleaner, such as benzine.

Frequently the fireproofing agent has a lower evaporation point than the flammable liquid, and if the solution is used over and over, there is a likelihood of the fire extinguishing agent evaporating to such an extent as to leave the solution poorly protected. In such a case vapors thrown off from the solution may ignite.

Battalion Chief Questions

To the Editor:

Recently an examination for Battalion Chief was held in a city near here, and I was fortunate enough to receive a copy of the questions given, which I would appreciate very much your answering for me. These are listed below:

State your actions and the disposition to be made in each of the following cases:

(a) A report to you states that a fireman drove the apparatus wrecklessly and was intoxicated. He obtained the liquor at the fire.

(b) A fireman when ordered by his Captain at a fire to enter a building (burning) to rescue some one, refuses saying the risk is too great, but is willing to try if the Captain will go with him. Neither enter the building and so much time is lost while the Captain is getting another fireman that the person dies.

State fully what investigations should be made, upon whom rests the responsibility and the proper disposition of each case.

State the difficulties and hindrances the Fire Department encounters when fighting fires in the following places:

a. Loft and storage buildings.

b. Amusement zones, theatres, restaurants.

c. Apartment houses.

Assume a fire in a building and outline what should be included in the "size-up." H. S.

Answer: Ordinarily, when a man drives recklessly, and is intoxicated, the thing to do is to bring charges against him and forward these charges through proper channels to the head of the department. The captain will then be called in to substantiate these charges, when the man is brought before the Chief for hearing.

In the second question, where the fireman refuses to carry out an order of a captain, there is only one thing to do and that is to bring charges. It is not up to a fireman to say whether or not his life is endangered by orders received from a superior; he must carry out those orders irrespective of what he believes to be a great danger. No captain will send a man into a situation where life will be at extreme risk, and certainly a captain must know when such hazards exist.

In answer to the questions regarding hindrances the Fire Department encounters when fighting fires in various places the following may be said:

Loft and storage buildings: Locked doors; partitions extending up near the roof, but not completely dividing the floor makes it difficult to reach the fire, but permitting the fire to travel over the entire area; goods of an inflammable nature stored close to ceilings; presence of shafts found in loft buildings of cheap construction; lack of sprinkler systems; presence of large quantities of waste materials of an inflammable nature; large number of employees present; lack of sufficient egress facilities in the event of fire.

Storehouses or warehouses: Locked doors; open constructions within building permitting fire to travel through entire area, but not providing access of firemen to different compartments; great quantities of materials stored therein, frequently of highly combustible or dangerous nature and piled close to ceiling; limited number of openings through which the Fire Department can operate; large open areas with stock piled high makes it difficult for streams to be used effectively over the entire area; congestion of traffic usually found in the neighborhood of warehouses; great weight on floors of building causing their collapse if floor supports are weakened and if large quantities of water are discharged on the floor.

Amusement zones, theatres or restaurants: The chief hazard in connection with fires in amusement zones are: heavy traffic, both pedestrian and vehicle; flimsy nature of many structures; large occupancy of buildings; danger of panic.

Theatres: Presence of celluloid film which burns rapidly and with intense heat, frequently throwing off toxic gases; traffic congestion both automobile and pedestrian; great crowds of people in the street and in the building, creating a severe life hazard; possible panic within building, slowing up operation of the department and necessitating use of men for clearing the buildings of occupants, rather than actually operating on fires. Combustible stored in back of stage or basements.

Restaurants: Presence of refrigerating plant, large number of patrons who may be on hand; accumulation of soot and grease around the hood of range in the kitchen of restaurants; storage of foodstuffs and inflammable materials, including packing boxes, etc., in basement.

Apartment houses: Heating plant, coal storage bins in basement, storage rooms in basement for various tenants of the apartment and in which might be stored all sorts of material; walls of these rooms are usually of grill type and padlocked, permitting no ready access by the Fire Department; storage of repairs supplies in basement; accumulation of paper and rubbish from the apartment house in basement; presence of several ducts leading from the basement through to roof, such as dumbwaiter shafts, speaking tubes, etc., inflammable stairs and stair hall fittings usually found in the older type of apartments; high board fences to the rear of the apartment, presence of clothes lines and clothes line poles at rear, slowing up ladder operation.

Size-Ups of Fires: With regard to the question on size-up of the different types of buildings, they consist of quick visual surveys of the fire grounds upon the arrival of the officer. The size-up should include the type of building involved, its height, type of construction, occupancy (this information can usually be secured from name plates on the front of the building, or names on side walls on different floors on the face of the building); type and occupancy of adjoining buildings; conditions at rear of buildings, as might have a bearing on the operation of the department; presence of iron shuters, wire glass or plain glass on building; direction of wind, weather conditions; possible presence of chemicals or other hazardous materials within the building; accessibility of the building to Fire Department operations, including such points as excavation in the street in front of the building, or other obstructions. The spread of fire should also be observed, for this will determine, together with the other points, the equipment which will be required; the occupancy on the various floors is also vitally important to determine if special ladder equipment is needed. All these points enter into the size-up and in themselves give the officer a very clear idea of just what he is up against and what steps he will have to take.

Among the Buffs

Secretaries of various box associations are urged to send news regarding their respective organizations.

Box 13 Holds Ladies' Night

Box 13 Associates of Cincinnati, Ohio, held their second Ladies' Night, on March 4 for which a program of fancy dancing was provided, followed by a film showing firemen in action at recent fires. The remainder of the evening was spent at cards, and closed with a buffet supper.

The third birthday of the Associates was held on May 6. Officers were elected and other business transacted.

Member Given a Scare

Box 27 of Springfield, Ill., held a meeting on April 13 at the Central Fire Engine House.

Firemen on duty served a corned beef and cabbage dinner. During the meal a fire was reported at 125 South Broadmoor, Springfield. Firemen pretended to have considerable trouble starting the motors of the equipment. As this was the residence of one of the members of Box 27, it threw quite a scare into him until he realized that it was a joke.

Chief Frock presented each member with Box 27 with a fireman's badge on which was inscribed the "27."

Third Alarm Associates Formed at Clifton, Ky.

As an outgrowth of the volunteer department at Clifton, Ky., the Clifton Third Alarm Associates has been formed, patterned after the many box associations. When Clifton was annexed to Newport, the original department was disbanded.

The group expects to establish club rooms in their former fire headquarters, and will equip the place through money received from the sale of equipment which the volunteers owned. A list of the equipment available may be obtained from William A. Ruff, Jr., 160 Main Avenue, Clifton, Ky.

Wolf Again Heads Box 13 Associates

The third anniversary of Box 13 Associates, Cincinnati, Ohio, was observed at the meeting held on May 6. The following officers were re-elected: Leon L. Wolf, Chief; Ralph E. Morrison, Deputy Chief; William B. Northrup, Secretary-Treasurer.

The associates are arranging a testimonial dinner to Chief Barney J. Houston of Cincinnati Fire Department to be held on July 1, to mark his twenty consecutive years as head of the department. Some of the local citizens are working with the fire buffs in arranging this dinner.

A social meeting was held on June 3, at which members had the privilege of inviting guests.

Box 52 Holds Ladies' Night

The Box 52 Association, Inc., of Boston, Mass., held a banquet and ladies' night on the evening of May 20 in the Boston Chamber of Commerce Building.

The speakers were Chief Michael Shea, Fitchburg, Mass.; Chief Albert C. Melendy, Nashua, N. H.; and C. W. Mowry, of the Associated Factory Mutual Fire Insurance Companies, who gave interesting stories of their experiences in flooded New England cities and of rescue, first aid, and emergency work performed by Fire Department units.

President P. Hildreth Parker directed the meeting and introduced the speakers. Copies of the May "News Letter" were distributed.

American Equipment Guards the "Queen Mary"

The growing emphasis upon the necessity for "Safety at Sea" has met with apt response in the more than usually complete precations in the construction of the new Cunard White Star Liner "Queen Mary."

The new super-liner has been equipped throughout with the latest in mechanical devices for fire protection, through the Walter Kidde Company, Ltd., London, associates of Walter Kidde & Co., Inc., New York.

Fire protection equipment includes three separate types. For cargo hold protection, the 19 cargo and like spaces are protected by the "Lux-Richaudio" audible smoke detecting and carbon dioxide gas extinguishing system. The Richaudio cabinet is installed in the fire station forward on "C" deck, where a fire watch is to be maintained continuously. Ninety-nine 50-pound capacity Lux cylinders are installed in the fire station, and constitute the gas supply for extinguishing fire in the cargo spaces, in accordance with the requirements of the International Convention and the British Board of Trade. Seventy of these cylinders are fitted with quick release valves, which are designed to provide simultaneous discharge for the protection of the motor car space. All control valves are located in the fire control station.

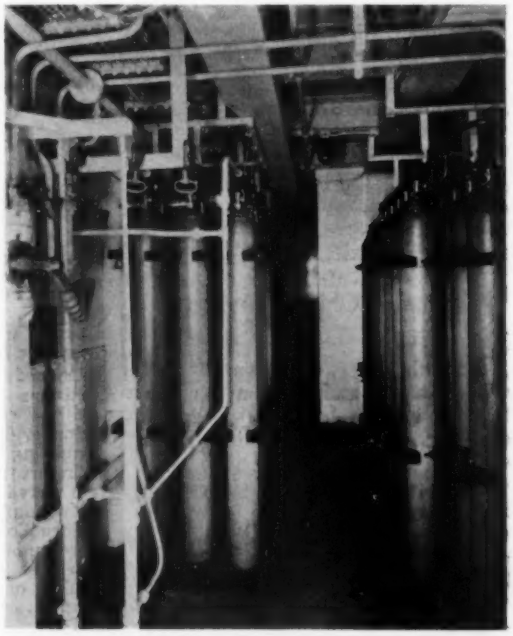
The five oil-fired boiler rooms are protected by a Lux carbon dioxide extinguishing system, consisting of two batteries of 70 fifty-pound capacity Lux cylinders each. The batteries are arranged for simultaneous discharge, one battery being sufficient to flood properly one boiler space in accordance with the requirements of both the International Convention and the British Board of Trade. The cylinders and control for the boiler rooms are located in the aft fire control station on "D" deck.

A unique element of this protection is that provision is made so that the boiler room cylinders are also available for the protection of cargo spaces as a reserve supply.

The first class and second class cinema rooms, film locker and the gasoline store room, each are protected by individual Lux standard flooding systems.

The combination of the Lux cylinders with the Richaudio detector provides a completely automatic system. The detector apparatus automatically rings a fire gong and flashes a detailed fire signal, so that the Lux system can be put into instant use at the inception of the fire.

Through a system of three-quarter-inch pipes which are run from all individual cargo spaces, and terminate in the fire stations, specially designed duplicate exhaust fans draw a continuous sample of air through each line into the detector. In addition to the audible signal, a slight trace of smoke is illuminated, and gives a visual warning of fire and locates the actual space where the fire has started. The air samples are discharged into the fire station, so that the additional precaution of smell detection is provided.



Battery of Fifty-Pound Gas Cylinders for Flooding Fire Spaces With an Inert Gas

The Lux gas extinguishing system has several advantages. The extinguishing agent is carbon dioxide gas. The cylinders are piped to special three-way valves, by which the line to the detecting cabinet may be closed and the burning hold connected immediately with the gas supply. The system discharges sufficient gas to create an inert atmosphere in the hold, and additional gas is discharged periodically to maintain an inert atmosphere until the hot material is cooled.

WM. JEROME DALY.

Work has started at Rochester, N. Y., on the construction of a new central fire headquarters at University Avenue and North Street.

Warning Signals that Warn!

You must have a clear path for your apparatus through even the heaviest traffic. Buckeye Roto-Rays and whistles clear the way for you by night as well as by day.

Three powerful, revolving, red lights on the Roto-Rays bite deeply into the night and instantly identify a piece of apparatus or emergency car while still many blocks away.

The Buckeye Exhaust Whistle has a piercing, attention-compelling sound that nothing can equal. The ceaseless roar of traffic is completely drowned under the commanding blasts of this whistle. More than five hundred progressive fire departments throughout the United States use this powerful whistle.

Write for complete details on Roto-Rays and whistles, as well as on other Buckeye fire department equipment.

Fig. 930
Junior Type Roto-Rays for Chiefs' Cars, Ambulances, Police Department, Emergency Cars, and smaller types of suburban apparatus.

Fig. 931
Large Type Apparatus Roto-Rays

Fig. 935
Junior Exhaust Whistle

Fig. 936
Medium Exhaust Whistle

Fig. 937
Heavy Duty Exhaust Whistle (At Right)

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WORLD'S FOREMOST FIRE FIGHTER
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THROWS 50 FT. STREAM
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SOLID BRASS PUMP
FOR FOREST · BRUSH & GRASS FIRES

Users of INDIAN FIRE PUMPS are located all over the world. Our files contain testimonial letters from foresters, fire chiefs and private citizens in distant places who highly endorse the INDIAN. Several of these are reproduced in our catalog which will be sent on request.

No wonder! The INDIAN is truthfully termed—a whole fire department in itself. Built for long, hard service, these fire pumps always work under any conditions. To operate simply fill tank with clear water, sling on back like pack basket. Work pump handle easily back and forth throwing powerful 50 ft. stream. Nothing complicated. No delicate parts to get out of order. Ventilated formfitting shield protects back of wearer from dampness. Brass carrying handle and brass bottom afford added strength.

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Gentlemen:—The Indian Fire Pumps we have on our trucks are the finest portable extinguishers I have ever used. They are the quickest, most economical means of extinguishing grass, brush, rubbish, awning or roof fires. Time after time we have succeeded in putting out large grass fires with our Indians, without having to lay a hose.

Very truly yours,
FRANK MITCHELL,
Fire Chief.

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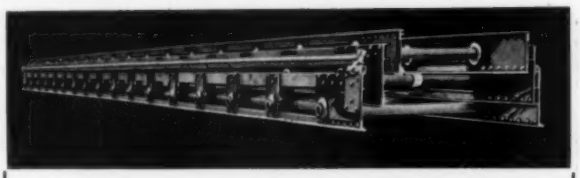

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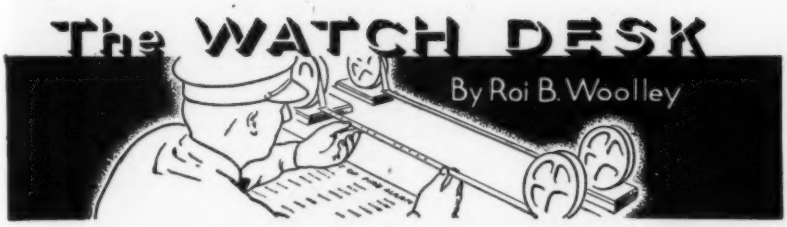

Our inquiring reporter overhauls the firemanic news of the day.

General Alarm Gets Quorum—And $3,600 for F. D.

Two attempts to hold meeting in Falmouth (Mass.) failed for lack of quorum. Looked like pure democracy of New England town meeting was in peril of obsolescence. But Fire Chief met emergency by sounding general alarm. Every voter not brought out by alarm was telephoned. By 9:10, with 209 voters present, meeting approved unanimously an appropriation of $3,600 for the F.D. Chief says it was a reward of merit.

Nude Departure in Fire Fighting

According to H. A. Howser, Bronxville (N. Y.), fireman of Kittery Point (Me.), fired with excitement, hustled to help extinguish flames in carpenter shop. Blaze quelled, he felt a draft. Investigation showed he wore only his B.V.D's! Reported he went home in a barrel.

Tractors to the Rescue

Lightning hit farm home of Miss Alice Laub, Bishop Hill (Ill.), disabled telephone, set house on fire. Olaf Sundberg, hired man, summoned neighbors by firing shotgun. One, a mile away, called fire truck. Another waited at mud-hole in road with tractor to pull fire truck out if it got stuck, which it did. Other tractors at other mudholes sped firemen on way. Damage was confined to attic through these cooperative efforts and quick thinking.

A Bundle of Clippings From Beverly (Mass.)

John Callahan, call man in the Beverly (Mass.) F.D., is responsible for these news bits:

Vol. F.D. of Kingston (Mass.) have ruling that siren is not to be blown for "small fires." Instead, telephone operator is to notify six men of "chimney squad," who'll do the dirty work. Well—a chimney caught fire in home of Dr. Carl Stegemier. But no firemen appeared. It developed that all six of "chimney squad" couldn't be located on phone. Chief Jack Drew "pinch-hitted" for his men and let chimney cool off, but didn't cool off himself until he gave men a hot raking over the coals.

Answering first call of year, Osceola (Ind.) F.D. rushed out with new chemical truck to extinguish fire in blazing auto. Two miles from town truck itself took fire. Firemen subdued blaze but truck refused to budge. Disgusted smoke eaters trudged back to town—auto burned itself up.

Well, well! Sixty-eight applicants for fire jobs in Rockford (Ill.) F.D. took exams. Twenty words given them in spelling test as part of quiz. Not one of 68 spelled all of words correctly.

In January, near Point Pleasant (N. J.), spring came prematurely, when house of Richard Ebhardt flamed up. A pussywillow tree, growing four feet from house, burst into full bloom from the heat. Get that, Ripley?

Saugus (Mass.) firemen have new $100,000 fire house. Returning from fire, found themselves locked out. Doors lock automatically and kind friend (?) had further locked side door against prowlers. A "day man" was gotten out of bed, made to fetch key, and the relieved firemen returned apparatus to quarters.

Firemen of Dover (Mass.) got into hot water through failure to register fire trucks for license plates. After responding to six alarms without proper plates someone tipped off motor vehicle inspectors who served notice on Chief Charles Durocher "to register trucks or not go to any more fires."

"Sparks" Flee As Sparks Fly!

Harold E. Davenport, Record-Clerk, and Treasurer of the W.E.Y. Club, a "fire-sparks" organization of Boston (Mass.), says the club was holding weekly meeting, when alarm hit for small fire few blocks away. Several "sparks" attended. Returning, they found rest of members had discovered chimney fire in their own clubhouse. "Prof." firemen, answering still alarm, had laugh on club members who, with red faces, resumed meeting.

Rainbow Firemen

Fire in a blower of United Color & Pigment Company, Newark (N. J.), recently brought 35 firemen, several pieces apparatus. After two hour fight tired men returned to quarters to find themselves "colorful characters." Every man's face, neck and hands was red, green or a melange of both colors. Neither pumice stone, soap and water or elbow grease had any effect on paint. City chemist—unable to suggest cure—advised calling paint company. They did, and heard only hollow laughter. "We're all in same fix" was reply. "You'll have to wait until it wears off—maybe four days or a week. It's the dust from the blower. You know, 'dust to dust' and all that."

"Stills"

Fire Department's new building burned down in Wierton (W. Va.). All the firemen were saved. . . . 250 houses burned at Dowidgrodek in Galicia; three persons burned to death—fire started by children playing with a sun glass in a hay-stack during high wind. . . . A negro, Wm. Wales, 65, Gordonsville (Va.), killed sheriff, wounded four men during six-hour siege of cottage. Finally captured—dead—when police fired the cabin with flares. . . . Several months ago Uniformed Firemen's Association, Mt. Vernon (N. Y.), went to court to prevent Vol firemen from taking civil service exam's for position of paid chief. Unsuccessful each time, they appealed against adverse decisions, U.F.A. finally took case to Court of Appeals. Court ruled Vol's might take exam's. Result of first test showed only man who qualified for job was John Carroll, a Vol! Job pays $3,500 a year. . . . In Newark (N. J.) thugs held up Anthony O'Bierne, chauffeur, and in order to avoid pursuit set fire to his trousers. . . . Mayor "Bossy" Gillis, Newburyport (Mass.), much in limelight, as first act in his third term discharged Fire Chief John Cutter for violation civil service rules; at court hearing Bossy was ordered to reinstate Chief. Upon his refusal he was fined $500. . . . Hugh Wilder, Newport (Vt.)—tight—demonstrated he could shout louder than local fire siren; unsympathetic judge fined him $14.45. . . . Governor Curley of Massachusetts, while addressing a veterans' meeting at Revere (Mass.) stopped his talk to say: "I see there is a fire across the way, the Fire Department is needed to put it out." He got results, but fire did $25,000 damage. . . . Fleet runners will carry fire from the ruined altars of Olympia in Southern Greece, where first Olympic games were held, to 1936 Olympic at Berlin. Will take ten days to cover circuitous 1,800 mile route.

34-Year-Old Rope Saves Man

For 34 years Elon A. Stowater, 74, Washington (D. C.), kept a rope under his bed in fear of fire, which finally came to his apartment house, to find him ready. Firemen asked him where he found the rope; he said: "I didn't find it. . . . I had it. I've kept it under my bed for 34 years. You see I've always been afraid of being trapped in a fire."

A Windy Wail From Willoughby

Wind whistled wround 'n wround, out in Willoughby (O.)—wrought wreckage to Wollunteers wrapped in slumber by wrapping wires awround each other causing Siwren to whoop it wup, and awaking whole willage. "What 'ell" wailed Wolly's, wrestling with wubber turnouts—you write the wrest!

Note to contributors: If you do not read your news contribution in the next issue of Fire Engineering don't despair—if it's suitable it will ultimately find its way into prior.

Editor, Watch Desk.

WHAT DO YOU KNOW?

The Editor of "The Watch Desk" welcomes contributions from readers of FIRE ENGINEERING that briefly give facts about interesting, odd things that have to do with fires, fire-fighting, etc. Address "Editor, Watch Desk."

Ruins of the Boys' Prep School at New Milford

Boys' School Razed

One woman met death and four others narrowly escaped the same fate, when fire totally destroyed the exclusive Canterbury Prep School at New Milford, Conn., on March 18. Mary Carlson, a house maid in the Center Building, was led to safety by members of the New Milford Fire Department, but suddenly darted away from the firemen and dashed back into the flame-swept building. As she brushed aside one fireman she muttered something about having "to save my clothes."

The fire, one of the most disastrous ever to hit New Milford, came during the height of the floods that have caused havoc in this section of New England, and did damage estimated over $100,000.

Only the fact that the students at the Canterbury school were home on their spring vacation prevented a catastrophe. Normally over one hundred boys are housed in the building, which is a combination dormitory and study building.

Fire was discovered by a night watchman of the school at 5:45 a.m. Three maids were awakened by the odor of smoke and found the second floor of the north wing where they resided, enveloped in flames. The maids were carried out from the burning building.

Fire spread rapidly to all parts of the three story stucco and frame building. When it was found that there was no hope of saving the building, firemen devoted their efforts to preventing the flames from reaching other nearby buildings. Firemen laid five lines of hose. A heavy downpour of rain aided in checking the spread of the flames.

The Canterbury School was built in 1901 and is located on Town Hill, overlooking New Milford. A strange paradox presented itself for while the occupants of the building were fleeing the flames, the residents of the lowlands were leaving their homes due to the rising waters of the Housatonic River.

THOMAS F. MAGNER.

Spokane, Wash., has ordered a 750-gallon pumper.

Four Die in Night Club Fire

Four lives were lost at a fire which started in a San Francisco night club as the aftermath of a dance by an entertainer who whirled around with two flaming torches. Twelve others were injured.

As part of the act the girl carried two flaming torches which had previously been dipped in benzine. A patron attempted to light his cigarette from one of the torches as the performer danced by. In trying to avoid him, she raised her arm and in doing so ignited the flimsy decorations and the low paper mache ceiling. Within a moment the entire room was ablaze.

The hat check girl was trampled to death as she started toward the dressing room to lead two girl entertainers to safety.

There was only one exit from the place, at the foot of a steep stairway with an abrupt right angle turn. All the windows were boarded.

As a result of this catastrophe, an examination will be made of all the night clubs in San Francisco.

WHAT'S BURNING

THE following list includes fires of $50,000 loss and over in the United States and Canada, for the month of May, 1936. These figures, compiled from the telegraphic reports, are based on estimates made at the time, and are subject to later investigations and consequent revision. Taken as a whole, however, they are an approximately correct view of the losses incurred. The figures represent loss in thousands of dollars.

Month Ending May 29	Loss in Thousands of Dollars
Woburn, Mass.—Woolworth building, damaged	$80
Pittsburgh, Pa.—Grain elevator of Newsom Grain & Feed Co.	80
Lexington, N. C.—Plant of United Furniture Co. destroyed	125
Wilmington, N. C.—Williston Industrial High School	125
Atlantic City, N. J.—International Garage destroyed	100
San Rosa, Cal.—Rosenberg dept. store and Santa Rosa Dept. store	50
Charleston, W. Va.—Capital Feed Co. warehouse destroyed	60
Girard, Cal.—Barns and refrigerating plant at Brant Dairy Rancho	50
Amarillo, Tex.—Bishop warehouse and adj. property	170
Pittsfield, Mass.—Gulf Refining Co. office and warehouse	50
Vancouver, B. C.—Chown United Church destroyed	80
Hobbs, N. M.—Rex Theatre and adj. property	80
Richmond, Va.—Property housing Simmons Mattress Co., damaged	170
Sisseton, S. Dak.—Grade and high school destroyed	125
Norfolk, Va.—Repair Dept. of Hampton Roads naval air station	50
Pittsfield, Me.—Municipal building destroyed	5
New Orleans, La.—Hart Enterprise Electrical Co., Inc.	80
Webster Springs, W. Va.—Business and residential property	65
Seattle, Wash.—Plant of Casein Mfg. Co., destroyed	125
New York, N. Y.—Abel grain elevator destroyed	200
Walnut Point, Va.—Freight and passenger boat owned by J. A. Lewis	50
Woodstock, N. B.—Plant of Woodstock Woodworking Co.	50
Paterson, N. J.—Property of D'Amelio Paper Stock Co.	80
Mora, N. Mex.—Several business establishments	50
Waynesboro, Pa.—Plant of Wayne Tool Co. destroyed	70
Orlando, Fla.—Phillips packing house and Central Storage Whse. Co.	170
Chicago, Ill.—Factory bldg. at 300-310 W. Eugenie St.	70
Litchfield, Minn.—Litchfield Woolen Co. stock room	70
DeWitt, Ark.—Business property owned by L. A. Black	70
Arcola, Ill.—Two filling stations and lumber yard	50
Pierson, Iowa—Two grain elevators and adj. property	60
Gatineau Mills, Que.—Test Plant of Canadian Int'l Paper Co.	200
Montgomery, Ala.—Silver's department store damaged	80
St. Stephens, S. C.—Mill property of Santee River Hardwood Co.	50
Pontiac, Mich.—Dwelling on Bement estate, at Lake Angelus, 2 mi. n.w.	50
Garfield, N. J.—Lumber yard and residential property	50
Monroe, N. C.—Plant of Henderson Roller Mills Co., destroyed	60
Marianna, Fla.—WPA canning and food disbursing plant	50
Yoakum, Tex.—Mill property and residence of Mrs. A. Jakuvick	50
Pentaluma, Cal.—Two warehouses destroyed	50
St. Justine, Que.—Parish church and adj. buildings	150
Marion, S. C.—Raleigh & Charleston R. R. freight station and adj. property	100
Wolcott, N. Y.—Wolcott canning factory destroyed	90
Charleston, W. Va.—Meat packing plant of P. E. Holz & Sons	125
Lebanon, Pa.—Plant of Yale Electric Co., destroyed	80
Okmulgee, Okla.—Filling station and auto parts shop	65
Paducah, Ky.—Four stores in business section destroyed	180
Kansas City, Mo.—U. S. Army hanger at city airport	250
Bakersfield, Cal.—Fish estate block in business section	170

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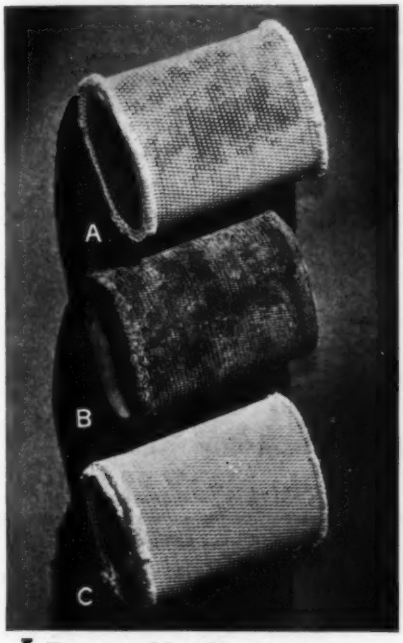
30 Large Fires Cause 6 Per Cent of Losses

Thirty large fires in the United States last year caused six per cent of the total fire losses, and amounted to $15,439,000. Public buildings caused fourteen per cent of the total damage done by large fires. The Oregon State Capitol Building at Salem, Ore., which caused a loss of $1,000,000, was the most costly of such fires.

Fire destroyed the telephone exchange at Salyersville, Ky., which was included in a business block that was gutted.



A Not processed for mildew protection.

B Processed for mildew protection by a competitor.

C PROVAR PROCESSED Republic Fire Hose —no sign of mildew.

• • •

Unretouched photo showing results after samples were saturated with water and exposed to moist atmosphere for six months.

Mildew Problem SOLVED BY THE PROVAR PROCESS

★ Republic announces the PROVAR PROCESS—an exclusive method of treating the cotton jackets of fire hose for protection against the destructive action of mildew—far outstripping any previous effort in that direction by any manufacturer.

After being saturated in water and exposed to moist, warm atmosphere for six months, PROVAR PROCESSED Republic Fire Hose revealed no mildew deposit, no discoloration, no loss of strength or quality in the cotton jacket. The PROVAR PROCESS is permanent, it will not wash out after repeated use. It means longer life for fire hose under any storage conditions, greater economy and greater safety.

When specified, the PROVAR PROCESS will be applied to any grade of Republic Fire Hose *without additional cost.*

THE REPUBLIC RUBBER CO.
YOUNGSTOWN, OHIO

Republic FIRE HOSE

Firemen Save Your Money

With This Low-Cost Portable Floodlight

Here's why the Homelite is the "Chief" of low-cost floodlighting plants.

- Its cost fits any budget.
- It generates 1250 watts—enough to operate several brilliant floodlights.
- It weighs only 89 pounds, complete with built-in gasoline engine.

With a Homelite you get all the floodlighting you need to speed up work, make rescues and protect your men. And you get it where you want it and the way you want it. One man can pick it up easily—put it anywhere without the use of long cables—and start it instantly in any weather.

Homelites are foolproof. Voltage is automatically held at 110. Waterproof and dustproof built-in gasoline engine cannot flood, freeze, or overheat.

See why more Homelites are in use than all other makes combined. Send for bulletin.

HOMELITE Corporation
906 RIVERDALE AVENUE PORT CHESTER, N. Y., U. S. A.

THE NEW *and* IMPROVED *STREAMLINED*

C-5

PAT. PENDING

COASTER SIREN WITH FLASHING LIGHT

LOUDEST BY TEST

Triple action in this new, powerful streamlined C-5 Coaster is attributed to:

1. ***SOUND** of a new compelling tone.*
2. ***LIGHT** that flashes on and off with siren roar.*
3. ***ECONOMY**—it actually coasts for more than 120 seconds.*

■ ***Think of it***—more than two minutes after current is shut off—that saves your battery. Greased sealed ball bearings—rugged in construction—fully chrome plated with strong candlepower light. Strong beams of light flashing on and off with siren roar floods streets with noise and light for blocks ahead, protecting lives, property and expensive fire fighting equipment. ***With or without Electric Brake.***

■ The application of the electric brake by the simple touch of a button instantly silences the siren roar, especially when in a zone of quiet.

ORDER A MODERN SIREN TODAY

FEDERAL ELECTRIC COMPANY
8702 SOUTH STATE STREET CHICAGO, ILLINOIS

"Look at this photo, Chief"

"See that GILSON NOZZLE lying on the pavement under pressure, and it is not fastened? THAT'S BACK PRESSURE CONTROL. Can you do that with your regulation straight nozzle? Can one man operate your straight nozzle with a 1⅛" stream? Can you do effective work through an outside drop cellar window or in between floors? How does your straight nozzle answer for partition fires? Is it easy to operate on a ladder through a window? A GILSON NOZZLE, operated BY ONE MAN, will do all of these jobs easily and efficiently. BACK PRESSURE CONTROL, a Swivel Connection and the Angle makes this possible."

GILSON

All Angle NOZZLE *And* WATER CURTAIN

spreads a solid sheet of water 60 ft. wide and 20 ft. high. It can be placed on the ground without fastening, or hooked on a window ledge or edge of a roof and will operate without further attention. Why use two or three hose lines to cover an exposure when one line and a GILSON CURTAIN will do the job? Further information on request.

Manufactured by

LOVELL DRESSEL CO., Inc.
ARLINGTON, N. J.

ELK HART IND.

34 years service in the fire field

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Prompt service
Quality products

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A PARTIAL LIST OF ELKHART PRODUCTS

Shut-Off Nozzles
Controlling Nozzles
Turret Pipes
Fire Department Extinguishers
Extinguisher Holders
Fire Truck Body Fittings
Hose House Equipment
All Types Hose Couplings
Sliding Poles, Railings and Canopies
Hose Test Pumps
Threading Tools
Coupling Expanders
Pump and Hydrant Valves
Hose Racks and Cabinets
Siamese Connections
Underwriters' Industrial Extinguishers

ELKHART BRASS MFG. CO.
ELKHART, INDIANA

EDDY
Fire Hydrants

Are given preference by so many fire protection and water works men because they know that more than half a century of experience go into their manufacture and they embody valuable and exclusive features.

Write for the Facts

EDDY VALVE CO.
Waterford, N. Y.
James B. Clow & Sons, Chicago Agents

WHAT FIREMEN'S COAT

Is Made of Vanitex, the soft, flexible, long wearing, waterproof Material?
Has the Famous Safety Snap that can be fastened and unfastened with one hand in a jiffy?
Was worn by the Firemen at Chicago's "Century of Progress"?

THE ANSWER IS

MIDWESTERN

Send for our free illustrated catalog showing complete line of our rubber and canvas garments. Satisfaction guaranteed.

Midwestern Manufacturing Co.
Mackinaw, Ill.

Catalog Service

BEFORE you buy, you may want to find out what the various manufacturers have to say. You can get their sales literature without cost or obligation.

Refer to Page 261

Wired Radio Used for Fire Alarms

Since radio has been developed for the transmission of the human voice, it has been the thought of Chief Thomas F. Burns, Bridgeport, Conn., that a system could be devised to intimately join together all fire stations with a central headquarters in order to give the best and quickest response to incoming alarms.

The realization of Chief Burns' idea was accomplished when the Talkalarm system, designed by Robinson and Halpenny, Bridgeport, radio and sound technicians, was installed in all fire stations in that city. Dedication ceremonies were held at Fire Alarm Headquarters and several city officials and Fire Department Chiefs from nearby cities were present. The first signal sent out over the Talkalarm was given by Chief Thomas F. Burns.

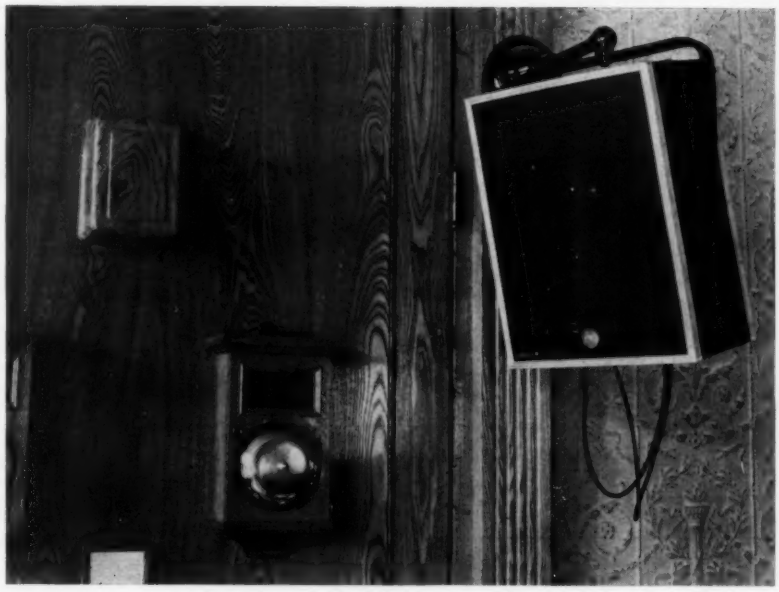
"The Talkalarm system has in reality the intimacy that all fire stations are under one roof," said Chief Burns while explaining the system to members of the press who were present. "Its improvement over the telephone method is explained in that a message over the telephone is heard only by the man at the watch desk. A signal over the Talkalarm is heard by every man on duty in all stations. In Bridgeport there are many streets which sound alike over the telephone.

"If a telephone message is given for a fire on 'Wayne' Street and the watch takes it for 'Main' or 'Jane' there is trouble ahead. With ten or fifteen other firemen listening to the Talkalarm it is hardly possible that all cannot get it correctly."

The central control desk at Bridgeport Headquarters is located in a convenient place alongside the telephone switchboard. This control desk is about the same size as a PBX board and houses the electrical equipment required at the dispatcher's end.

Alongside the watch desk sounding board in each fire station is located an apparatus room unit for receiving all signals from the central office microphone. Every word is faithfully reproduced simultaneously in each station.

Chief Burns Sending His First Message Over the System



Fire Station Loud Speaker Through Which All Signals Are Received

Preceding the spoken instructions is a characteristic warning signal similar to a low toned siren. At the sound of this siren each man is placed on the alert for the announcement that is to follow.

Individual units, smaller in size than the units over the watch desks, are located in the office of the department and in the sleeping quarters of the Assistant Chief. A small volume control button is attached to these units. When a telephone call is received by the operator on duty in the alarm room, he immediately presses the siren control lever upward and the warning signal brings the men at attention in all stations. When the operator presses the lever downward he delivers the order by giving the location and nature of the fire and the company due to respond.

In the event of an alarm from a street corner box, the operator sends the siren signal out with this announcement following: "Alarm coming in. Stand by." The box alarm is then sent out over the bell circuits. In order to give the system a thorough test daily, time signals are sent out to stations at 8 a.m., 12 m., 5 p.m. and 8 p.m.

THOMAS F. MAGNER.

His Effective Plea Was Useless

Joe Fifarek is the Chief at Traverse City, Mich. At a meeting of the City Commission he described the condition of his twenty-four-year old fire truck so well that the commission was moved to have a new motor purchased and installed. The car had a broken crankshaft, a cracked differential and several other ailments.

But this bit of city generosity was of no material good to the Department, for unfortunately no parts have been made for that type car since the World War.

Funds are being collected by firemen of Seville, Ohio, for the purchase of new equipment.

Memphis Has Low Fire Loss

Memphis, Tenn., has reported a low fire loss of $217,785 for 1935. This is the lowest since 1900, and compares with $587,496 for 1934. In 1900 the city had an area of sixteen square miles and the loss was $177,630 for a population of 102,320. At present the area has developed to fifty-three square miles and the population to 265,000.

Massachusetts Chiefs Re-elect McCarthy of Worcester

Chief Charles L. McCarthy, Worcester, was re-elected President of the Fire Chiefs' Club of Massachusetts at the annual meeting which was held in the Parker House, Boston, on May 20.

The other officers chosen were: Chief William C. Mahoney, Peabody, First Vice-President; Chief Frank F. Dickinson, Brockton, Second-Vice-President; Chief William H. Hill, Belmont, Secretary-Treasurer; Chief Manuel S. Miguel, Manchester, Sergeant-at-Arms; the Board of Directors consisting of Chief Ray D. Wells, Falmouth, Chief Thomas H. Mahoney, Westfield, Chief Thomas F. Slaman, Wellesley, Chief Robert E. Tappin, Gardner, and Ex-Chief Daniel F. Sennott, Boston.

Insurance Commissioner DeCelles was the speaker and he discussed fire insurance rates, which he said were too high in many instances. He said they did not give proper credit for improvements made in the fire service of the communities concerned.

The next meeting of the club will be held in September. Secretary Hill reported that the club has 178 active members, 25 honorary members, 17 life members, and 35 associate members.

A model of the new incinerator invented by Chief Tarment, Foxboro, was exhibited.

HARRY BELKNAP.

MAKE YOUR RESERVATIONS NOW FOR THE I. A. F. C. CONVENTION

The 64th Annual Convention of the International Association of Fire Chiefs will be held at the Hotel Royal York, Toronto, Ontario, on July 28 - 31.

An unusually strong and interesting program has been arranged.

All indications point to a record-breaking attendance.

Make your hotel reservations now!

You can't afford to miss this outstanding meeting.

EDITOR.

CORRESPONDENCE

Loud Speaker on Apparatus

To the Editor:

Here is something that I would like to pass on to the department officers.

You know when you get on a fire truck, the first thing you want to know is: "Where is the fire?" Often the motor is making so much noise one cannot hear the man standing nearby.

My suggestion is to have a microphone in the center of the steering wheel with a loud speaker just behind the driver. He could talk to the men and give them instructions as he goes along, and yet never take his eyes off the road. It seems to me that this would be especially good for a volunteer company, and on long ladder trucks.

Yours truly,
J. C. RUSMISELLE,
Chief, Waynesboro, Va.

* * *

Mice and Matches

To the Editor:

In looking over the various issues of FIRE ENGINEERING, the writer has noted occasionally, articles on mice and matches, and being interested in fire protection, and naturally in causes of fires that need extinguishment, the writer remembers an incident which took place in a cottage at Marblehead, Mass., some years ago, the circumstances of which were about as follows:

The cottage was owned by relatives of the writer, but was not occupied by the owner the summer which preceded the event. The occupants of the cottage during that summer were obliged to close the cottage very suddenly, owing to extremely sudden illness which occurred in the household. Therefore, the ordinary precautions regarding the closing were not as carefully observed as usual.

At the time this incident took place, very few of the cottages were equipped with electric lights, or wired for electric lighting, and almost everyone used kerosene lights. Therefore, there were a number of match safes in most of the cottages, as was in the case of the cottage mentioned.

Owing to one delay or another, the writer did not take the usual crew of plumbers and carpenters to close the cottage for the season until very late in November, at which time practically all of the cottages on Marblehead Neck were vacated.

Upon entering the cottage, the writer and the mechanics accompanying him were shocked to find the floor of the cottage literally strewn with matches, which were of the "strike-anywhere" variety, which was the type of match usually used at that period. A great many of the matches showed evidences of gnawing, and fully, without exaggeration, there were a dozen that had been ignited by the gnawing of rats or mice, but fortunately had done no more than flare and scorch small patches on the rugs upon which they had dropped.

It was obvious that the rodents had made an inroad upon the vacated cottages after the cold weather had set in, seeking every form of food, and when all other forms were exhausted, they had gnawed the paraffin-dipped ends of the matches.

Of course, the "strike-anywhere" type of match is practically extinct today, but it is the writer's understanding that even the safety matches and many of the "strike-anywhere" matches in use have some impregnation near the tips to assist in the kindling of the body of the match.

Up to the witnessing of this condition, the writer had always been of the opinion that "rats and matches" explanation of fires was merely a good alibi for the investigators, when they could find no other plausible explanation of the fire, but since that time the writer has felt that there was more to this source of danger than first meets the eye.

Yours very truly,
D. ESTES.
Knight & Thomas, Inc., Boston, Mass.

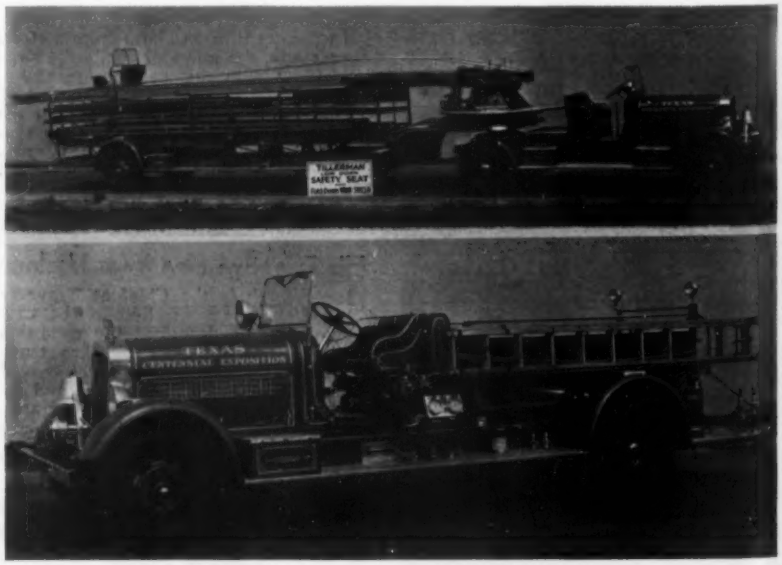
Brown, Binghamton, Retired

Elmer J. Brown, Chief of Fire Department, Binghamton, N. Y., was retired on pension on June 1, after a fire service that dates back to 1906. Arthur J. Dillon is Acting Chief.

Chief Brown joined the department in 1906 and was appointed fireman on July 18, 1907. On June 1, 1915, he was promoted to Captain; Assistant Chief on January 1, 1916, and Chief on May 1, 1927.

He is a charter member and a former Secretary and President of the Binghamton Firemen's Benevolent Association; First Vice-President, New York State Association of Fire Chiefs; member of New York State Permanent Firemen's Association, International Association of Fire Chiefs, Central New York Firemen's Association, Tri-County Fire Chiefs' Association, and honorary member of a number of county associations.

Jacksonville, Fla., will spend about $15,000 to recondition a fireboat that has been in use for nineteen years.



Pirsch Apparatus Protects the Texas Centennial Exposition

A Pirsch pumper, and one of the new model ladder trucks, are protecting the Texas Centennial Exposition at Dallas, against the spread of fire. The exposition opened on June 6. The ladder truck is provided with a wind shield for the tillerman, which may be folded down

Roll in Chief —

with the most Modern Motor Apparatus effective on *EVERY* type of fire—

GARRISON!

Years of research—and the new, enlarged GARRISON plant—have made possible the world's most complete, most effective Motor Apparatus—Pumping Engines (all capacities)—Hose Cars—Ladder Trucks — Flood-Lighting Apparatus — Emergency and Airport Crash Apparatus. Extinguishment used is the GARRISON *DRY* compound, which will not freeze, corrode, or deteriorate. And harms nothing but fire.

Write for details.

Fire Losses would be very materially reduced if every building were well equipped with GARFIRE GUNS. Only $4.75 each, complete. Weight, 3½ lbs. Anybody can handle them. Quickly. Safely. And they'll put out *any* incipient fire within 10 seconds!

GARRISON ENGINEERING CORPORATION

GARRISON FIRE CONTROL PRODUCTS

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Manufacturers' Announcements

Knoeppel With Garrison Engineering

F. W. Knoeppel, 2,727 Riverside Avenue, Jacksonville, Fla., is now with the Garrison Engineering Corporation, Great Barrington, Mass., and will cover the southeastern states. He was formerly with the Mack International Motor Truck Corporation, and Ahrens-Fox Fire Engine Company.

Hydrogen Sulphide Detector

A light, hand operated instrument for the quick and accurate detection of hydrogen sulphide gas, has been developed by the Mine Safety Appliances Company, Pittsburgh, Pa. A special illustrated folder has been issued to describe the instrument and its field of application. The percentage of H_2S concentration is read directly on a scale attached to the instrument.

Nozzles for Steamship Use

The Gilson all angle nozzle and water curtain manufactured by Lovell Dressel Company, Arlington, N. J., was submitted for approval to the Executive Committee of the Board of Supervising Inspectors of the Bureau of Navigation and Steamboat inspection. The committee is of the opinion that the curtain and nozzle may be considered as complying with the general rules and regulations wherein suitable fire nozzles are required.

Sprink-la-Stat

An illustrated folder has been issued by the Gamewell Company, Newton, Mass., to describe the Sprink-la-Stat automatic fire alarm system. It is a heat actuated device. The melting of a sprinkler head releases a spring and forces a plunger through an opening in the head so that an electrical contact is made, and an alarm sent. The heads are made for temperature ranges from 160° F., which is for normal ceiling temperatures, to heads that will go off at 360 degrees. If this system is connected to the city fire alarm box, it will automatically call the Fire Department.

Dominion Chiefs to Meet in August

The twenty-eighth annual convention of the Dominion Association of Fire Chiefs will be held at Windsor, Ont., on August 26-28. The city has two large hotels, a number of smaller ones, and unlimited accommodations for the visitors in private homes. Chief C. J. DeFields, Windsor, advises that special arrangements have been made for the entertainment of the ladies.

Kiwanians of Mason City, Ia., paid a visit to the fire headquarters where Chief Dan Shire explained the operation of the department.

Ishpeming, Mich., City Council voted for the purchase of FWD 600-gallon pumper equipped with Peter Pirsch apparatus, and a Peter Pirsch service truck provided with aluminum ladders.

Gamewell Makes Promotions

Edward J. McCarthy, for the past four years District Sales Manager of New England for the Gamewell Company, has been appointed General Sales Manager of the company with headquarters at the general offices at Newton Upper Falls, Mass.

E. J. McCarthy

He has been with the company for sixteen years. For twelve years he was located at the Chicago office as Assistant District Sales Manager for the middle west territory.

Mr. McCarthy was born in Syracuse, N. Y., and graduated in 1920 from the Massachusetts Institute of Technology. Following his graduation he went with the Gamewell Company.

L. E. Lowry, with the company for over thirty years, has been appointed Sales Promotional Manager, with headquarters at the general offices. For a number of years he was District Sales Manager of the middle west territory with headquarters at Chicago.

L. E. Lowry

Fire Wardens Re-elect Emerson

More than two hundred persons attended the annual spring banquet of the Middlesex County, Mass., Forest Fire Wardens' Association which was held in the Tewksbury Town Hall on the evening of May 21.

Chief Charles F. Emerson, of Andover, was re-elected President and Chief Ernest N. Bartlett, of Billerica, was re-elected Secretary.

The speakers were Commissioner of Conservation George E. Dean, Fire Warden, Maxwell C. Hutchins, Asst. Warden John Crowe, and Chief John W. O'Hearn, of Watertown. Others on the platform who extended greetings were Chief Frank Tracy, Woburn; Chief David A. DeCourcy, Winchester, president of the New England Association of Fire Chiefs; Chief Thomas A. Qualey, Medford; Chief Orville O. Ordway, Reading; and Secretary Bartlett.

A turkey supper was served preceding the meeting and following the talks there was vaudeville entertainment. An outing and field day will be held on June 20 in the Harold Parker State Forest in Andover.

HARRY BELKNAP.

Great Lakes Fire Chiefs Meet

Chief Hugo R. Delfs, Lansing, Mich., was elected President of the Great Lakes division of the I. A. F. C., at the close of the annual convention held at Rockford, Ill., May 19-21.

Some of the many talks that were given included:

"Salvage," by Frank McAuliffe, Chief, Chicago Insurance Patrol.

"Medical Care in the Fire Department,' by Dr. Harold P. Sullivan, Chief Medical Officer, Chicago Fire Department.

Chief Hugo R. Delfs

"Ventilation," by Anthony J. Mullaney, Deputy Chief Fire Marshal, Chicago.

"Building and Testing of Ladders," by James Gleason, Superintendent of Apparatus and Equipment, Chicago Fire Department.

"Fire Streams and Demonstrations," by Clarence Goldsmith, Assistant Chief Engineer, National Board of Fire Underwriters, Chicago.

Chief William Freeh, South Bend, Ind., was elected First Vice-President; Chief William Waters, Oak Park, Second Vice-President, and Chief R. E. Mottesheard, Dearborn, Mich., was re-elected Secretary-Treasurer.

Fire apparatus mounted on a Ford V 8 chassis has been delivered to Cherokee, Ia.

The Firemen's Union, Reading, Pa., is seeking to have the Governor appoint a resident state factory inspector to be stationed in the city.

Chief Archie McDiarmid, Vancouver, B. C., severely criticized the present thirty-two-year-old fire boat, which is a converted whaler. He said that to put the boat in good condition would be half the price of a new one.

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CONVENTION DATES

June—NEVADA STATE FIREMEN'S ASSOCIATION. 1st Annual Convention, Reno, Nev. Secretary, Norman Brown. Carson, Nev.

June 9-11—STATE FIREMEN'S AND FIRE MARSHAL'S ASSOCIATION OF TEXAS. 60th Annual Convention, Fort Worth, Tex. Secretary, Olin Culberson, Edna, Texas.

June 9-12—ANNUAL FIRE COLLEGE, ILLINOIS FIREMEN'S ASSOCIATION. 12th Annual Fire College, University of Illinois. Director, L. H. Provine; Secretary, Assistant Chief Roy W. Alsip, Fire Department, Champaign, Ill.

June 10-11—SOUTH CALOLINA STATE FIREMEN'S ASSOCIATION. 31st Annual Convention, Camden, S. C., exact date to be decided later. Secretary-Treasurer, John H. Wohlers, Chief, Fire Department, Charleston, S. C.

June 10-11—NORTHERN INDIANA INDUSTRIAL AND VOLUNTEER FIREMEN'S ASSOCIATION. 31st Annual Convention, Garrett, Ind. Secretary, Russell Rowe, Garrett, Ind.

June 10-12—NORTHERN NEW YORK VOLUNTEER FIREMEN'S ASSOCIATION. Annual Convention, Carthage, N. Y.

June 14-15—DISTRICT SECTIONS, FLORIDA STATE FIREMEN'S ASSOCIATION. Sectional Meeting, Winter Haven, Fla. Secretary, F. C. Pfaender, Winter Haven, Fla.

June 17—FIRE CHIEFS' EMERGENCY PLAN. Regular Meeting, Fire Headquarters, Larchmont, N. Y. Secretary, Capt. Walter Dawkins, P. O. Box 341, Port Chester, N. Y.

June 17—FIRE CHIEFS' EMERGENCY PLAN OF FAIRFIELD COUNTY. Regular meeting, Fire House, Belltown Fire Company, Belltown, Conn. Secretary, Lieut. John Moehring, Toms Road, Stamford, Conn.

June 17—NORTHWESTERN OHIO FIREMEN'S ASSOCIATION. 63rd Annual Convention, Bowling Green, Ohio. Secretary, J. W. Gardner, Ashland, Ohio.

June 17—WASHINGTON STATE ASSOCIATION OF FIRE CHIEFS. 4th Annual Convention, Tacoma, Wash. Secretary, W. A. Groce, Spokane, Wash.

June 17-19—TENNESSEE FIREMEN'S ASSOCIATION. 6th Annual Convention, Peabody Hotel, Memphis, Tenn. Secretary-Treasurer, Joseph J. Martin, Nashville, Tenn.

June 17-20—WASHINGTON STATE FIREMEN'S ASSOCIATION. 14th Annual Convention and Fire School, Tacoma, Wash. Secretary, Lyle J. Ficklin, Kalama, Wash.

June 20—LEBANON COUNTY FIREMEN'S ASSOCIATION. 14th Annual Convention, Newmanstown, Pa. Chief Fire Marshal, A. S. Stauffer, Palmyra, Pa.

June 20—NASSAU COUNTY FIREMEN'S ASSOCIATION. 30th Annual Parade and Tournament, Westbury, L. I., N. Y. Secretary, James McInnes, Syosset, L. I.

June 22-23—MISSOURI VALLEY CHIEFS' ASSOCIATION. 2nd Annual Convention, Black Hawk Hotel, Davenport, Ia. Secretary-Treasurer, Chief Ray Tiller, Waterloo, Ia.

June 22-25—COLORADO STATE FIREMEN'S ASSOCIATION. 6th Annual Fire College (June 22-23) and 20th Annual Convention (June 24-25), Manitou, Col. Secretary, Clinton Turnbull, 215 Boston Bldg., Denver, Col.

June 22-26—SOUTH DAKOTA FIRE SCHOOL. 7th Annual School, Brookings, S. D. Secretary, M. C. Sullivan, Parkston, S. D.

June 23-25—HUDSON VALLEY VOLUNTEER FIREMEN'S ASSOCIATION. 47th Annual Convention, Middletown, N. Y. Secretary, Chief Chris W. Noll, Poughkeepsie, N. Y.

June 23-25—NEW ENGLAND ASSOCIATION OF FIRE CHIEFS. 14th Annual Convention, Hartford, Conn. Headquarters, Hotel Bond; Exhibits, Armory. Secretary-Treasurer, Chief John W. O'Hearn, Watertown, Mass.; Chairman, Exhibit Committee, Chief Daniel B. Tierney, Arlington, Mass.

June 23-25—FIRE CHIEFS' ASSOCIATION OF OHIO. 19th Annual Convention. Steubenville, Ohio. Secretary-Treasurer, Chief Philip J. Harty, Fire Dept., Youngstown Sheet & Tube Company, Youngstown, Ohio.

June 24-26—MARYLAND STATE FIREMEN'S ASSOCIATION. 44th Annual Convention, Hagerstown, Md. Secretary, George R. Lindsay, Hagerstown, Md.

July 4-11—ALLEGHENY COUNTY VOLUNTEER FIREMEN'S ASSOCIATION. 22nd Annual Convention, Mt. Oliver, Pa. (Parade, July 11). Secretary, A. H. Leck, McKees Rocks, Stowe Township, Pa.

July 7-10—PROVINCE OF QUEBEC POLICE AND FIRE CHIEFS ASSOCIATION. 4th Annual Convention, Grand'Mere, Que., Can. Secretary-Treasurer, Chief Robert Harrington, Fire Dept., McColl-Frontenac Oil Co., Ltd., Windsor Hotel, Montreal.

July 10-11—EASTERN ASSOCIATION OF FIRE CHIEFS. 9th Annual Convention, Nelson House, Poughkeepsie, N. Y. Secretary, Charles E. Clark, Box 217, Wayne, Pa.

July 14-15—MARITIME FIRE CHIEFS' ASSOCIATION. 22nd Annual Convention, Kentville, N. S. Secretary, Chief George P. Ryder, St. Stephen, N. B.

July 15-16—CENTRAL NEW YORK FIREMEN'S ASSOCIATION. 43rd Annual Convention, Ithaca, N. Y. Secretary, Leon H. Ingersoll, Cincinnatus, N. Y.

July 17-18—HUDSON-MOHAWK VOLUNTEER FIREMEN'S ASSOCIATION. Annual Convention, Renssalaer, N. Y.

July 19—REGIONAL FIRE SCHOOL. Little Falls, Minn.

July 20-23—PACIFIC COAST ASSOCIATION OF FIRE CHIEFS. 48th Annual Convention, Seattle, Wash., Secretary, Jay W. Stevens, Merchants' Exchange Bldg., San Francisco, Cal.

July 27-30—WEST VIRGINIA FIRE SERVICE EXTENSION SCHOOL. 6th Annual School, West Virginia University, Morgantown, W. Va. Director, D. L. McElroy, at the University.

July 27-Aug. 1—UPPER PENINSULAR FIREMEN'S ASSOCIATION. Annual Convention, Negaumee, Mich.

July 28-31—INTERNATIONAL ASSOCIATION OF FIRE CHIEFS. 64th Annual Convention, Hotel Royal York, Toronto, Ont. Recording Secretary-Treasurer, Ex-Chief James J. Mulcahey, 16 Franklin Ave., Yonkers, N. Y.; Chairman, Exhibit Committee, Chief Roy B. Mottesheard, Dearborn, Mich.

Aug.—CENTRAL DISTRICT FIREMEN'S ASSOCIATION. Annual Convention, one week, date to be announced later. Secretary, Gilbert Coble, P. O. Box 366, Punxsutawney, Pa.

Aug.—NORTH CAROLINA STATE FIREMEN'S ASSOCIATION. 49th Annual Convention, Raleigh, N. C. Secretary, John L. Miller, Concord, N. C.

Aug.—UTAH STATE FIREMEN'S ASSOCIATION. 36th Annual Convention, Ogden, Utah. (Exact date to be decided later.) Secretary, John J. Creedon, P. O. Box 25, Bingham Canyon, Utah.

Aug. 4-6—WISCONSIN PAID FIREMEN'S ASSOCIATION. 29th Annual Convention, Waukesha, Wis. Secretary, William Schultz, Sheboygan, Wis.

Aug. 11-13—INDIANA FIREMEN'S ASSOCIATION. 20th Annual Convention, Terre Haute, Ind. Secretary, Burley Marshall, P. O. Box 725, Terre Haute, Ind.

Aug. 11-14—STATE FIRE CHIEFS' ASSOCIATION OF VIRGINIA. 8th Annual Convention, Norfolk, Va. Secretary, Chief E. H. Rouse, Orange, Va.

Aug. 11-14—VIRGINIA STATE FIREMEN'S ASSOCIATION. 50th Annual Convention. Norfolk, Va. Secretary-Treasurer, O. B. Dabny, Staunton, Va.

Aug. 17—VERMONT STATE FIREMEN'S ASSOCIATION. 46th Annual Convention, Rutland, Vt. Secretary-Treasurer, W. H. Adams, Vergennes, Vt.

Aug. 17-20—CALIFORNIA STATE FIREMEN'S ASSOCIATION. 14th Annual Convention, Lodi, Cal. Secretary-Treasurer, H. E. Strasser, 1171 Tenth Ave., San Diego, Cal.

Aug. 18-21—FIREMEN'S ASSOCIATION OF STATE OF NEW YORK. 64th Annual Convention, Tonawanda, N. Y. Secretary, Fred A. Davis, Fort Edwards, N. Y.

Aug. 21-22—CONNECTICUT STATE FIREMEN'S ASSOCIATION. 53rd Annual Convention, Greenwich, Conn. Secretary, D. W. Harford, 10 Chestnut Street, South Norwalk, Conn.

Aug. 26-28—DOMINION ASSOCIATION OF FIRE CHIEFS. 28th Annual Convention, Windsor, Ont. Secretary, Chief James Armstrong, Kingston, Ont.

Aug. 29—INDIANA STATE FIRE CHIEF'S ASSOCIATION. Annual Convention, Logansport, Ind. Secretary, Chief Archie McCabe, Muncie, Ind.

Aug. 31-Sept. 3—NATIONAL MUNICIPAL SIGNAL ASSOCIATION. 41st Annual Convention, Hotel Pennsylvania, New York City. Secretary, W. H. Harth, Columbia, S. C.

Sept.—MISSOURI STATE FIREMEN'S ASSOCIATION. Annual Convention, Mountain Grove, Mo.

Sept. 15-16—IOWA STATE FIREMEN'S ASSOCIATION. 59th Annual Convention, Hotel Winchester, Eldora, Ia. Secretary, Paul A. Soener, Independence, Ia.

Oct. 6-8—FIREMEN'S ASSOCIATION OF THE STATE OF PENNSYLVANIA. 57th Annual Convention, Williamsport, Pa. Secretary, Chief Charles E. Clark, Wayne, Pa.

Oct. 13-15—ILLINOIS FIREMEN'S ASSOCIATION. 49th Annual Convention, Pekin, Ill. Secretary, Assistant Chief Roy W. Alsip, Fire Department, Champaign, Ill.

Jersey Fire Chiefs Meet

The first quarterly meeting of the New Jersey State Fire Chiefs' Association was held at Medford Lakes, near Mt. Holly, N. J., on May 28. Over one hundred Chiefs were present.

The Treasurer reported improved financial condition of the Association and the Secretary stated that the membership was growing.

The three principal topics on the program were a talk on "General Fire Knowledge," by Battalion Chief John J. Wilkinson of the Newark Fire Department; "Some High Lights on Fire Department Hydraulics," by Fred Shepperd, Editor, FIRE ENGINEERING, and "The Teletype Fire Alarm System," by Chief Green, of Morris Township, N. J.

The delegates were treated to a motor trip around the community of Medford Lakes and the local and neighboring Fire Departments put on a demonstration of water pumping, employing several pieces of apparatus of different makes.

The Pyrene Company demonstrated their new foam producing nozzle.

Chief Charles W. Greenfield, Arlington, N. J., is President of the Association.

W. B. Anderson, Head of Buckeye Co., Dead

William B. Anderson, President of the Buckeye Iron & Brass Works, Dayton, Ohio, died May 27, following a fall at his home. He was eighty years old and had been connected with the Buckeye firm for sixty years. Starting as bookkeeper, he later became Secretary and in 1917 assumed the presidency.

Mr. Anderson was very active in civic and Masonic affairs. He was a member of the Rotary Club, served on various civic committees and was also a trustee of a Dayton hospital for many years. A thirty-third degree Mason, he held practically all high state offices in the various branches of Masonry.

Some time previously, he and his wife had celebrated their golden wedding anniversary.

The company which Mr. Anderson headed was the third oldest manufacturing organization in Dayton. It was established in 1848.

His son, Robert C. Anderson, who for many years has been Vice-President of the Buckeye Company, and will continue in active charge of the business, is widely known in fire circles throughout the country.

Schroon Lake, N. Y., has ordered a 500-gallon triple combination pumper.

Norfolk, N. Y., has ordered a 500-gallon triple combination pumper designed for rural fire fighting.

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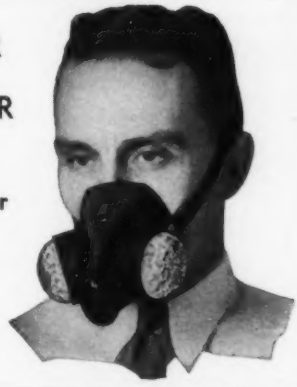

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YET LOW
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Barton U-Type Pumps are built in 350, 400, 500 and 600-gallon sizes. A pump for every need and pocketbook — and we have other models at still lower prices.

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—IT LOAFS ALONG!

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Another thing to bear in mind is Front-Mounting. To install a Barton U-Type Fire Pump on the front of any standard truck requires NOT ONE CHASSIS CHANGE. In fact, the entire installation job can be done by any good mechanic in a few hours—COSTING BUT A FEW DOLLARS.

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Officers and Members of the Fire Chiefs' Emergency Plan at a Recent Meeting Held at Pelham Manor, N. Y.

Westchester Chiefs Hold Annual Dinner

The annual dinner and meeting of the Fire Chiefs Emergency Plan was held at the Elks Club House, White Plains, N. Y., on the evening of Wednesday, May 20, with about 115 Chiefs, other Fire Department officials and guests present. A short annual meeting of the Plan was held and the following officers were elected:

President—Deputy Chief Roi B. Woolley, Larchmont.
First Vice-President — Chief Edward Barth, Elmsford.
Second Vice-President — Chief Bernard Cropsey, Greenville.
Third Vice-President — Chief William Livingstone, Tarrytown.
Secretary (Renominated)—Captain Walter Dawkins, Port Chester.
Treasurer—Captain Edward H. Siller, Yonkers.
Directors, Two Years — Earl Krows, Hastings-on-Hudson; Chief Thomas Outhouse, Ossining; Chief John Brennan, Pelham Manor, and Chief Fred Langloh, Rye.
Directors, One Year—Chief John Gibson, Mt. Vernon; Ex-Chief James Sullivan, Greenwich, Conn., Chief J. A. McCullough, Port Chester, and Chief Thomas Brennan, Verplanck.

On invitation of Chief John A. Petterson, it was decided to hold the next and final meeting of the year at Fire Headquarters, Larchmont, N. Y., on Wednesday, June 17. President Krows asked the members to stand for one minute in silent tribute to the late Chiefs Towle and Rosner, who had passed away during the year. The meeting was then turned over to Ex-Chief Travis of Peekskill, as Toastmaster. He introduced as guests Fred Shepperd, Editorial Director, and I. H. Case, General Manager, of FIRE ENGINEERING. A pleasant diversion was the calling upon "Dr. Ygor Hagupp, of the Czechoslovakian Legation at Washington." The doctor made a speech in very broken English—in fact became so tangled up in the intricacies of the language that much merriment was evoked. This so offended the speaker that he walked off the platform in high dudgeon. After a tense moment, he returned and was reintroduced as Pete Mack, a well known character impersonator, of the National Broadcasting Company.

Roi B. Woolley
Deputy Chief, Larchmont, N. Y.
President

The principal speaker of the evening was Chief Selden Allen, Brookline, Mass., former President of the International Association of Fire Chiefs. He emphasized the need of good equipment, trained personnel and an adequate supply of "ammunition" for the Fire Department. The campaign of education that had been carried on in recent years had raised the efficiency of the fire-fighting forces to a high level. The need of an adequate supply of water was of the greatest importance. The modern Fire Department has three spheres of operation—fire prevention, fire extinguishment and salvaging and saving of human life. Chief Allen paid a tribute to Former Assistant Chief Dougherty, of the New York Fire Department, for his work in teaching ventilation. He related several of his experiences in his own Fire Department, and urged the need of well formulated building laws. He spoke of the need to take the public into the confidence of the Fire Department, and concluded his address by a strong endorsement of the aims and work of the Plan in the matter of mutual aid.

At the conclusion of the dinner, Treasurer Riviere presented for the Plan a handsome lamp to President Earl Krows, who had served as its head for two years.

Ohio School to be Held at Canton

Plans are being completed for the third Ohio Regional Fire School to be held at Myers Lake Park, Canton, Ohio, July 7-8. Representation is expected from Ohio, Pennsylvania, and West Virginia. Mayor James Seccombe, of Canton, has written letters to the Mayors and Safety Directors of municipalities in these three states inviting them to the exposition, which will be held in connection with the school, as his guests.

There will be a two-day exposition, at which will be displayed some of the newest fire apparatus and equipment. The school and exposition will be in charge of C. T. Donnelly, Assistant Chief, Lakewood, Ohio.

Safety Conference Held in Boston

Two fire prevention meetings were held in connection with the fifteenth annual safety conference, sponsored by the Massachusetts Safety Council, in the Hotel Statler, Boston, on April 23.

Alfred N. Miner, of Gilmour, Rothery & Co., presided. The speakers at the morning session were Deputy Chief Samuel J. Pope, of the Boston Fire Department; Miss Doris Greenwood, Director of Home and School Safety, Massachusetts Safety Council; Percy Bugbee, National Fire Protection Association; F. Eliot Cabot, former President of the Boston Board of Fire Underwriters; Captain Norman Jones, Fire Prevention Division, Providence, R. I., Fire Department, and Chief George L. Johnson, Waltham, Mass., Fire Department. The subjects discussed were home inspections for fire hazards and fire prevention instruction in schools.

At the industrial luncheon held in the Statler Ballroom a demonstration of fire hazards and some common causes of fires was given by Theodore Gunn, of the New Hampshire Board of Fire Underwriters.

The speakers at the afternoon meeting were Frederick G. Farquar, President, Boston Protective Department, who spoke on "Protection and Salvage"; William D. Milne, Eastern Underwriters' Inspection Bureau, on "Effects of Floods on Fire Protection"; Everett F. King, Lever Bros. Co., on "Putting Fire Prevention Across to the Workers"; John P. Crowe, Assistant State Fire Warden, on "Protecting Our Forests Against Fire"; Charles L. Woodman, District Fire Warden on "The Value of Pumping Equipment in Fighting Forest Fires," and Chief Ray D. Wells, Falmouth on "The Cape Cod Experiment." HARRY BELKNAP.

Mt. Vernon, N. Y., is contemplating the purchase of two new pieces of fire apparatus, at a cost of about $25,000. One will be combined rescue and floodlight car.

Fairfield Chiefs Hold Annual Dinner at Danbury

The annual dinner and meeting of the Fairfield County Fire Chiefs' Emergency Plan was held at the Hotel Green, Danbury, Conn., on the evening of Wednesday, May 27, with a large attendance. Chief Frank R. Gisborne, Sound Beach Fire Department, Old Greenwich, presided at a short business meeting. The following officers were elected:

Chief Sydney Stapely
Nichols, Conn., President.

President—Chief Sydney Stapely, Nichols.
First Vice-President—Chief Horace Walker, Ridgefield.
Second Vice-President—Assistant Chief Bernard Scully, Westport.
Third Vice-President—Chief Thomas Boyle, Noroton.
Treasurer—Chief George Brencher, Darien. (Renominated.)
Board of Directors (Two Years)—Chief F. R. Gisborne, Old Greenwich; Chief Harry Askew, Turn of River; Chief John McNamara, Danbury, and Chief Victor Velt, Stamford.
Board of Directors (One Year)—Chief Daniel Knickerbocker, Springdale; Ex-Chief Peter Beckerle, Danbury; Chief Charles Volk, South Norwalk, and Fire Commissioner Clifford Merwin, Shelton.

On invitation of the Belltown Fire Company, it was decided to meet at Belltown, on the evening of Wednesday, June 17, for the final session before the summer recess.

A watch was presented to retiring President Gisborne on behalf of the Plan. President Stapely asked the members to stand for a minute in respect to memory of Chief Towle, the "Father" of the "Plan" idea.

An invitation was extended to the Plan by Chief Bogardus to attend the annual Fire Department evolutions in Norwalk, Conn., on May 29.

The President then turned the gavel over to Judge Martin J. Cunningham, as Toastmaster. The first speaker was Mayor Adam A. Ross, of Danbury, who welcomed the Plan to the city. Others called upon were Alderman Switzer, Councilman Zinser, Alderman Baker, all of Danbury; Chief John D. Moorehouse, President of the Mid-Hudson-Harlem Fire Chiefs' Association, and Chief Roi B. Wooley, President of the Fire Chiefs' Emergency Plan, Westchester County, N. Y.

The evening concluded with an excellent entertainment.

J. H. Newcomb, Attleboro, Dead

Joseph H. Newcomb, Superintendent of Fire Alarms and Inspector of Wires in Attleboro, Mass., died on March 19 in the Sturdy Memorial Hospital after an illness of ten weeks following an operation. He was born in Lowell and was employed by the New England Telephone and Telegraph Company and by the Gamewell Company. Later he served as Assistant Superintendent of Fire Alarms in Needham. He had been in service in Attleboro as fire alarm chief for over thirty years. He was sixty-five years of age and was president of the Attleboro Firemen's Relief Association at the time of his death.

HARRY BELKNAP.

Chief Templeton, Muskogee, Dead

John L. Templeton, 80-year old ex-Chief of Muskogee, Okla., died of pneumonia following a ten-day illness. He had collapsed in his room and was removed to the hospital where pneumonia set in. Had he lived, he would have been eighty-one on April 11.

He came to Muskogee in 1906, when a political change caused his removal as head of the Fire Department at Council Bluffs, Ia. He was retired on a pension nine years later.

Chief Templeton was a great lover of children. He was active in local Boy Scout and Girl Scout groups. He became active in the Boy Scout movement during the World War.

A son, a member of the U. S. Navy, died four years ago. He is survived by his widow.

Toronto Has 3-Alarm Fire

During one of the worst blizzards of the season, Toronto, Ont., department fought a fire which started from an unknown cause at the plant of the MacFaralane Ladder and Woodenware Company, and caused $150,000 damage. The plant covers about six acres. One section of the plant is constructed of brick and is three stories high, and the balance is of one story frame construction.

The alarm was received at 9:01 p.m., and a second was sent at 9:09 p.m. Roads were almost impassable due to snow. The first companies found most of the frame structure in flames; the second alarm companies found most of the plant involved. A third alarm was sent at 9:15.

Chief Sinclair ordered some of the nearby homes evacuated. The fire was fought on all four sides. A switch engine moved several box cars to safety. The wind had increased in intensity and soon only the brick walls remained standing.

At 3 a.m., the third alarm companies were ordered back, at 5 a.m., the second alarm companies, and the fire was struck out at 11:30 a.m.

Chief Sinclair was in charge assisted by Platoon Chiefs Fox and Gunn, District Chiefs Smith, Poole, Dr. Hill and J. Agnew. The apparatus response included ten engine companies, five ladder companies, one salvage truck, gas truck and emergency cars from the gas and electric companies. In all, thirty-five 2½-inch lines were used.

JOHN KARL LEE

New Publication for Signal Men

The Associated Municipal Signal Service, which serves as a coordinating body for the New England Municipal Signal Association, the New Jersey Municipal Signal Association, North West Municipal Signal Association, and the Southern New York Municipal Signal Association, will issue a monthly publication called "C.E.M.E.N.T."

The technical side of the association will still be served by the Municipal Signaling Journal, and it will cover municipal fire alarm and police signaling, radio communication, and traffic signaling.

The quarterly meeting of the New England Municipal Signal Association was held at the Biltmore Hotel, Providence, R. I., March 18-19. The Secretary is R. J. White, 32 Oakdale Street, Brockton, Mass.

The New Jersey Municipal Signal Association held it regular bi-monthly meeting at fire headquarters, West New York, N. J., on March 25. The Secretary is A. A. Sullivan, Fire Alarm Headquarters, Bayonne, N. J.

National Fire Waste Council Reports

The thirteenth annual meeting of the National Fire Waste Council was held at Washington, D. C., with Albert T. Bell, presiding. A number of committees submitted reports.

A three-way program for agricultural fire protection was proposed by the Agriculture Committee. It calls for an increase in the number of rural fire companies, better rural water service, and closer installation and use of telephone service in the rural areas.

Richard E. Vernor reported for the Contest Committee. This year there were 635 entries. The committee is making every effort to get all other eligible Chambers to take part in the contest. The Contest Grading Committee submitted a list of the contest winners.

Paxton Mendelssohn, Chairman, Fire Casualty Statistics Committee, said that reports are being received from only about ten per cent of the country. Eliminating usual circumstances, most injuries and deaths are caused by open fires, people falling into grates or coming too near stoves. Women are the most victims of this class, due to the wearing apparel. Others in their order are pouring gasoline on fires, explosions, misuse of inflammable liquids, matches and open lights, and holiday celebrations.

Clarence Goldsmith, Chairman, Fire Service Extension Committee, reported on the educational work carried on for the past eight years. During 1935, classes and courses were conducted in forty-two states. A number of regional schools were held.

Five million booklets on the subject of "Fire Prevention in the Home," were issued by the Federal Housing Administration in connection with reconstruction work.

T. Alfred Fleming, Chairman, Speakers Committee, gave a report on the number of radio talks and public addresses that were given throughout the country.

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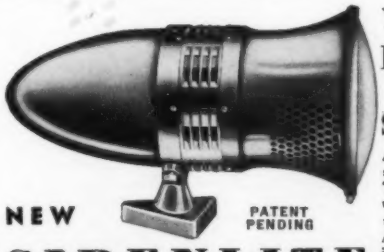

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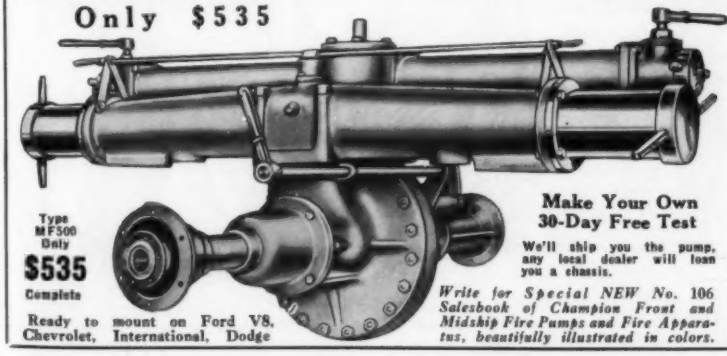

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FALSE ALARMS

JUST BAD

The volunteers were trying to raise money to pay off a payment on the pumper. They had arranged with a local movie house for a show for which they would get a share on the tickets the firemen sold. Even one of the village grouches was induced to come, but as he left the theatre after the show, he was heard to say to his wife:

"It certainly is wonderful how pictures have advanced these last few years."

"How so?"

"Well, first we had the silent pictures, then the talkies, and now this one smells."

He calls his girl "Checkers." She jumps every time he makes a bad move.

EASILY CONVERTED

It was during a convention. While the Chiefs were upstairs discussing the best methods of extinguishing fires, a salesman went downstairs for a drink. There at the bar was one of the so-called bar flies.

She was drinking beer and so was he. As a matter of conversation he asked:

"How many beers does it take to make you dizzy?"

She looked at him for a moment.

"Oh, four or five, but don't call me Dizzy."

"Well, I think I'll put the motion before the house," said the chorus girl, as she danced out onto the stage.

STILL A CHECK

At one of the short fire schools, a lecturer proved to be one of the type who go on, so it seemed, for days and days. Finally even he felt that he had talk too long. He said:

"If I have talked too long, it's because I haven't my watch with me, and there's no clock in this auditorium."

A member of the audience was heard to mumble:

"Well, there's a calendar behind you."

PROPERLY NAMED

The Captain had invited the Commissioner to visit his home in the new beach development.

The visitor looked at the two-story house and remarked:

"I don't see why you call your place a bungalow."

The host answered, "Well, if it isn't a bungalow, what is it? The job was a bungle and I still owe for it."

Some people wish that their weekend guests were like the popular phrase: "Here today and gone tomorrow."

HE SHRUNK

There was not much love between the tillerman and the driver of the truck company. The truck was being driven back from the department shop.

During the conversation, the driver said to the mechanic beside him:

"That fellow back there is not as big a fool as he used to be."

"Is he getting wiser?"

"No," he answered, "he's getting thinner."

As she left the party in a hurry, she said, "I'm losing my punch."

EXCITEMENT

The Chief looked at the new rookie as he came in, in the morning.

He bellowed, "You should have been here at the change of shifts."

The rookie looked puzzled.

"Why? What happened?"

There is a newspaper item about a man having twelve children. He must have gone stork mad.

MERELY LOVE

The druggist came out of the back of his store, with several bottles in his hand. The customer looked at the assortment, and then cautioned the druggist:

"Now be sure to write on them bottles which is for the horse and which is for the wife. I don't want nothing to happen to that horse until after the tournament."

THE IMPOSSIBLE

The fireman was doing duty back stage of the theatre. He saw one of the performers smoking a cigar. He motioned to an alley that led from the stage.

The performer failed to notice the gesture.

The fireman said, "You'll have to smoke at the other end."

The actor was puzzled. He replied, "I can't. It's lit."

SMALL AMOUNT

The last paper had been presented. A group of the fellows jumped into a car and drove about to get a breath of air after listening to talks all that afternoon.

They stopped at a roadside inn for a bite.

"Waiter," said the head of the group, "bring me some ginger ale."

"Pale, sir?"

"No. Just a glass."

TOO FAR

After the promotional examination, some of the candidates grouped together and compared notes on how they worked out some of the problems.

"About how far away were you from the correct answer?" asked one.

"Oh, about three seats."

—Drawing by "Art" Espey

Chief: "Yep, Commissioner! I've solved the enclosed fire truck problem. Wrap the men in cellophane. That'll pertect them!"

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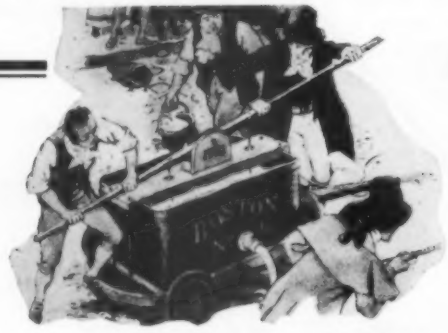

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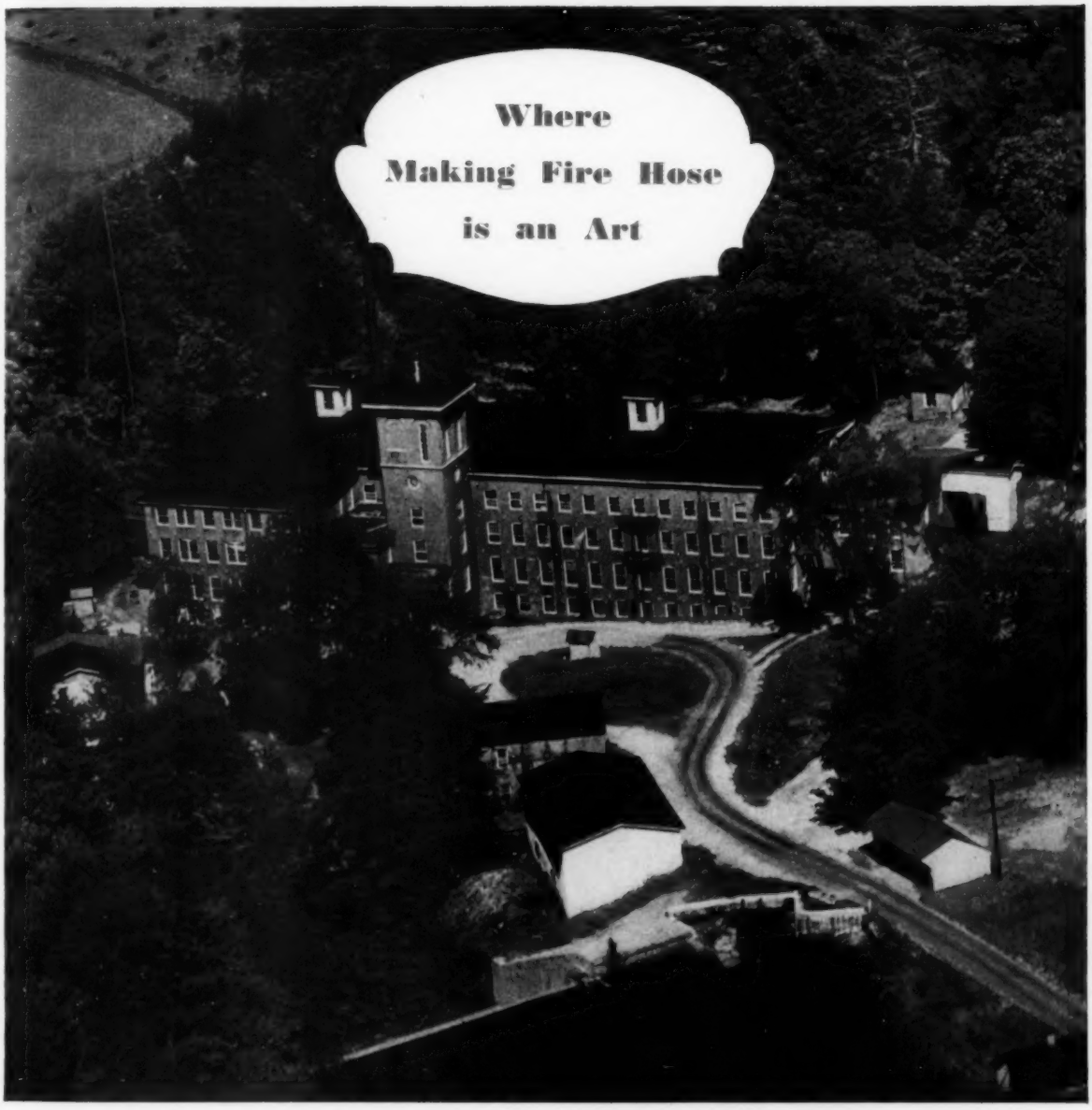

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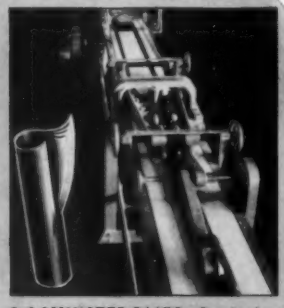

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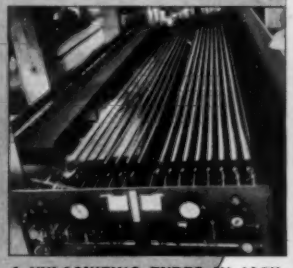

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